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THE

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Send you an additional packet of Reports on the Influenza; among which I think you will find some as interesting as any that have ever appeared on the subject. I may yet receive a few more, and they shall be forwarded for next month, with my own observations.

In the last number, pp. 291 and 294, the proper name should be Giddes. The omission of the queries before each paragraph makes Mr. Tudor's letter read unconnected. The queries related to the facts, shewing the influenza to be contagious or otherwise, to its resemblance to catarrh, and its gradation from pneumonia to low fever.

I am, &c.

October 10, 1803. THOMAS BEDDOES.

90. Dr. MACKIE, Southampton, Sept. 16, 1803.

Southampton and its neighbourhood were uncommonly favoured; in February, March, and April, we had a very general catarrhal indisposition, yet by no means so universal that we should have given it the name of an influenza, if we had not heard so much of it from almost every other part of the Island. I believe it was sufficient, however, to fill the hands of our apothecaries. Few cases were so serious as to fall to the lot of the physician; those I saw, were marked with little or no peculiarity different from the common diseases of that season, and I neither met with, nor heard of, any that terminated fatally. I understood it was more severely felt in our neighbouring large towns of Portsmouth, Winchester, and Salisbury, from which you have probably obtained reports.

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91. Dr. Littlehales, Winchester, September 14, 1803.

In answer to your inquiry I beg leave to inform you, that, as far as I am able to recollect, the influenza made its appearance in this city and neighbourhood about the first week in March. In a very few patients some serious peripneumonic symptoms occurred, but I have reason to think that, comparatively speaking, the disease was light in these parts, at least if I may be allowed to judge from a family who brought it with them from London, which suffered more severely than their neighbours. There was frequently so great a degree of direct debility that I was under the necessity of allowing wine diluted with decoction of bark, or camphorated mixture with a few grains of myrrh, and I did not perceive that it ever augmented either the cough or difficulty of breathing. Opiates were much less efficacious in this than in common coughs, and I sometimes thought the cicuta answered better. Blisters were always I think useful. The most remarkable circumstance was a continued want of appetite for a very considerable time after the disorder had entirely subsided. These are all the observations which occur to my memory, and I wish they were of more importance.

92. Dr. Fowler, Sarum, September 18, 1803.

This should have been with you earlier if I had been more successful in ascertaining dates. I saw no case of influenza before the 12th of March, nor any since the 8th of June. Mr. Wyche, who is a surgeon here, states his first case to have been seen on the 9th of March, and his last on the 11th of May. All the cases that I saw within the first two days of the disease, were instantly relieved by calomel and James's powder. I always applied blisters where there was pain in the chest; and where the inflammation of the larynx and trachea was such as to produce symptoms resembling croup, leeches were applied with good effect to the neck. I employed the lancet only in three cases. The symptoms differed from those of common catarrh in degree rather than in kind. The pain in the head was more severe. The sense of suffocation much greater during the first three or four days. In general, this symptom appeared to be produced rather by a spasmodic than an inflammatory affection of the larynx.

The first patients whom I saw with influenza were six interesting children in the same family. I then had the disease myself, but not so severely as to confine me. One

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large family in the country, and who had little communication with others, escaped the disease till June. They thought they caught it from their music-master. Seven persons, who attended in succession a lady who had it severely, were attacked with it. Her daughters, who were kept away from her, escaped. Several instances of a similar kind occurred. Nothing that I witness authorises me to say *positively* that the disease was contagious; but I thought it right to separate as much as I could the sick from the well.

93. Mr. Earnest, Sheffield, September 18, 1803.

According to your request I send you the following account of the influenza, when it appeared in Sheffield, and adjacent places.

It commenced first of all in the neighbouring villages near and southward of the town of Sheffield, in the beginning of March; about the middle of the same month it appeared in Sheffield, and in April it became very general and prevalent. The symptoms in some cases ran alarmingly high, and was with great difficulty subdued. I have been informed that several cases ended fatally, but it was with such subjects as were predisposed to phthisis. I believe many practitioners have said that the influenza is a contagious disease, but several of the senior practitioners here say not; and since I received your letter I have particularly inquired into the truth of this assertion, and the result of my inquiries is as follows. It is a well known fact by some of our medical men, that when two or three of a family were ill in the influenza, others of the same family slept with them and never took the contagion.

94. Dr. Mossman, Bradford, September 19, 1803.

The first time I heard of the Influenza was of its prevalence in the city of York; it then approached Leeds; and about the 25th of April it made its appearance in Bradford; from whence it continued its progress to the westward. In Bradford and its vicinity it was the most prevalent about the middle of May, and disappeared about the end of June.

Its first approaches resembled those of a common continued fever; but its future progress was characterised by several peculiarities. The lassitude, chills, and succeeding heats, which mark the presence of fever, preceded the influenza; but in the influenza the pain in the head was

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not so acute as in a common fever, though it was very distressing if the patient was put in motion; and very frequently accompanied by a confusion and staggering; pains resembling those of rheumatism were generally complained of, more especially in the larger joints. In every case there was an affection of the chest, accompanied by cough and dyspnœa, without any violent or fixed pain. The pulse was from 100 to 120; thirst considerable. In short, with a few peculiarities, it approached nearer to the features of peripneumonia notha, (as described by authors) than any other disease. The symptoms were very generally alike; they only differed in degree; and it was never fatal unless it attacked asthmatic or phthisical people, or those labouring under other diseases. All ages and constitutions were attacked by it; but females seemed to suffer the most severely. In the commencement of the disease, *emetics* were of the most essential service. *Local bleeding* and *blistering, nitrous* and *saline* medicines, with *opiates* at bed time, were the powers employed here, and they never failed to afford relief; *but the most effectual of all other remedies was the digitalis,* administered in the dose of 15 or 20 drops three or four times a day. *In the cases of children its operation was strikingly beneficial.* A low regimen was universally advised, with cool drinks, and a cool temperature. It was generally terminated by secretion from the membrane of the larynx and expectoration; but unless much care was employed, relapses were by no means unfrequent. The convalescents recovered very slowly; they continued long in a weak state; and it was remarkable that their intellectual powers were very often considerably impaired. When the inflammatory action was subdued, we advised nutritious regimen, and we employed *barks,* and the *vitriolic acid.* The disease was very certainly not contagious. During its epidemic influence no other disease appeared. Since the appearance of my pamphlet on Consumption, &c. I have had very numerous applications for the cure of that disease; and more especially since the prevalence of the influenza. Seven out of ten of my phthisical patients date their complaints from the attack of the epidemic in question; and I certainly think that there is a greater tendency to fatality in the cases originating in the influenza, than in those which have sprung from other causes. I find extreme difficulty in combating the symptoms; and the powers which I employ successfully in other cases, do not effect the same relief in phthisis arising from the influenza. This is curious; but I have no doubt of the fact.

No

No other disease, with the exception of pulmonary consumption, has appeared in this neighbourhood, which can be traced to the influenza.

I hastily submit to you these observations. You may make what use you please of them. They are thrown together without any proper arrangement; but you may depend on the facts.

95. A Correspondent, York, September 20, 1803.

On conversing with many medical gentlemen here, I am enabled to ascertain that the influenza was prevalent in York during the months of February, March, April, and May. Some catarrhal fevers were observed from about the middle of January, but were not then considered as a peculiar epidemic, although they very much resembled the disease afterwards called influenza. It was very general all February and March, and began to decline in April; there were however many similar complaints here and there through May and June, and perhaps still later.

The complaint was on the whole milder than in some other situations, and generally yielded to lenient methods of cure. Venesection was rarely necessary; and blisters were not often essential, but sometimes applied with good effect. The lower orders of the people must have managed it without much medical aid, for I am informed that there never were a great many patients in this disorder at the Dispensary; and it appears that the first applicants were so late as the 1st of April, when the vigor of the epidemic was somewhat abated in the town. Many suffered relapses, especially from exposure to cold; and one medical man had so many relapses that he did not get free of it for near six weeks. Happily for him he is in the vigor of life, and of a good constitution. It has not been considered as a contagious disease by the greater number of the practitioners in this city. Many instances have occurred where a whole family have had it in a most rapid manner; many where only one or two in a family, and others where the husband has escaped although cohabiting with his wife, who had the influenza; and vice versa. Some numerous families had it not at all, although no less intercourse than usual existed. Infants, in general, suffered more than adults; in some cases repeated bleedings with leeches and emetics were required. Old people, and especially those who had laboured under pneumonic affections, suffered much; and a very few died. Vertigo, to an excessive degree, occurred in a small number of cases, in which the other

other symptoms were not considerable. A more minute account of symptoms, or detail of the method of cure, would be superfluous, as they agree pretty much with what has been pursued very generally. I shall only add, that two practitioners here thought the digitalis very useful in the commencement of the complaint.

The above seems all that is necessary as to what regards York, which I should have been glad to have sent you sooner; but you must know that it is no easy matter to collect the report of ten or twelve medical men, who have to look back into day-books, &c. In a few days I shall be able to send you a farther account of its appearance, &c. &c. in a circuit round York, whose radius cannot be less than thirty miles.

The same Correspondent has taken the trouble to explore the district surrounding York and has given the geographical positions so accurately, that if we had many similar examples, nothing further could be desired as to the progress of the complaint. The following nine numbers comprize his collection. Nos. 96—104.

At Kirby-moor Side, about thirty miles to the N. N. E. of York, situate at the edge of an extensive tract of barren moors, which separate it from the sea from north to east, Mr. H. observed as follows.

It is with extreme regret that I have at so distant a period to acknowledge the receipt of your last in September. Having had numerous and distant professional calls, I have been thus long prevented. I am half persuaded that any observations that may fall from me will be too late for the purposes designed, if not too trivial for further communication; yet, that I may not withold my mite in settling the present controversy, or be thought indifferent to a request which you have honoured me with, I now hasten to observe,

That the influenza made its appearance here in April, and continued in May and June; that several passed through the disease in so mild a manner as not to require medical attendance, yet a few solitary cases proved violent, and put on alarming appearances. Few or none however proved fatal, except in the case of a maniac who expired in a sudden and unexpected manner. About this period the typhus mitior prevailed in this vicinity, together with several irregular cases of pneumonia, in which two asthmatic patients of a middle age were snapped off suddenly; and I am sorry to add, that a more than usual proportion of

of cases resembling phthisis, have, since the prevalence of the general epidemic, been observed by me, which I can but with others (in predisposed habits) look on as a sequela thereof. The influenza bore a very considerable resemblance to a catarrhal affection which prevailed here in October and November preceding, but without the pre-exciting cause, viz. exposure to cold, watching, or fatigue. In its attack it was very different; instead of introducing itself slowly and insidiously, its commencement was immediate and sudden; pain of the forehead and temples, the eyes more or less affected, slight dyspnœa, accelerated pulse, pyrexia; these were soon followed with the variable characterizing symptoms of low fever, accompanied with such an extraordinary prostration and general debility of the whole system, as served to correct the mistaken ideas of those who had previously looked up to bleeding as a necessary measure. A petulant cough, which was seldom attended with free expectoration, was more or less distressing, unaccompanied with that coryza we experience from acquired cold, a dejection of spirits, and sometimes erratic muscular pains in the limbs and different articulations. These, together with a confusion of mental intellect, and a very slow return of strength, were in various combinations generally present, and which in my idea was what constituted our late general epidemic. Emetics at the onset; diluents; the free use of aq. ammoniæ acetat. sometimes combined with mistur. camphor. epispastics; mild aperients; tinct. opii. camphor. and sp. vitriol. d. were employed with general advantage.

I come now to give my opinion as to its contagious powers; and am sorry to observe, that from the division that prevails in the sentiments of the Faculty, the common adage so frequently applicable to another profession may attach to ours, and that the "*in*-glorious uncertainty of *Physic*," may be as proverbial as that of *Law*. Allowing, as I am ready, that several in one family have suffered nearly together in the complaint, whilst on the other hand one or two only out of a great number have been attacked, this confirms my idea that we are still to look for one common exciting cause, viz. atmospheric influence; but before this can operate there must be a peculiar idiosyncrasy or aptitude in the constitution to receive this morbid impression; and wherever these two causes exist I would venture to suppose the result will be uniform, and the general endemic, alias influenza, the consequence. I cannot suppose the complaint is ever the offspring of contagion arising from

from human infection or fomites; and indeed to countenance this opinion it is necessary to allow the duration of the complaint to exist for a longer period than it has been observed in the system, before such an assimilation or congeries of miasmata could pravail, so as to render it eminently infectious, at least if we are to infer from analogy with other diseases that have proved communicable from one individual to another. I am well aware that these arguments have been embraced for espousing both sides of the question, and shall anxiously look for Dr. Beddoes's suming up a commentary from the great mass of testimony that has been already before him and the public.

You are perfectly at liberty to make what use you please of this; I regret that it is not as I could wish, more *succinct*; but if your packet be not already dispatched to Dr. Beddoes, and you should deem it of any consequence, perhaps you might abstract such parts from it as you may deem worth the trouble. I cannot close this without expressing a wish that Dr. Beddoes may favour the world with a nosological arrangement, or classification, of the present disease, as a lasting memorial of his attention to the epidemic, which at various and distant periods has so suddenly diffused itself across this island.

At Tadcaster, nine miles south-west of York, where the vale of York begins to terminate in a variety of rising grounds, Mr. Shann informs me the first patient he saw was on the 15th of March; "if I had seen any before that time they had been considered as common catarrh." From the 20th to the 28th I saw many families, in each of which, six, eight, or ten were seized with the complaint in twenty-four hours; "at a later date I think the epidemic became less rapid in its progress, but continued to spread gradually till about the middle of April, at which period few cases of the disease remained. In more than two or three instances, in large families, I observed most of those escape who were not attacked with the complaint within three days of its first appearance in that family, although they waited upon those ill of the disorder." During the progress of the disease, Mr. S. observed, especially in two instances, where it had not yet been in the family, that in less than thirty-six hours after the arrival of an invalid, (in this complaint) from a short distance, two persons in each family were attacked by it.

The prevalent symptoms were pyrexia, acute pain accompanied with a sensation of tightness across the forehead; oppression of the heart with a troublesome cough; and

and in many instances, especially in those who were in the habit of free living, great depression of spirits.

Antimonial and saline medicines, with occasional purgatives, appeared the most useful. Tonics and cordials in very few cases were indicated; and when tried, commonly seemed to aggravate the most troublesome symptoms.

At Selby, fourteen miles nearly south of York, in a very flat country, Mr. Fothergill first observed the complaint about the 12th of February. The symptoms first appeared truly inflammatory, attended with violent pain in the head, and a disposition to vomit. After an emetic, antimonials with saline mixture gradually reduced these symptoms in five or six days. General debility ensued with a slight appearance of putrefaction, attended with great irritability. Mr. F. found the cinchona very useful. The complaint lasted twelve or fourteen days, and in some instances longer. Seldom or ever, fatal. In many instances the whole family were more or less afflicted. *Some had an eruption upon the skin, attended with sore throat.*

At Howden, twenty miles south east of York, in a very low country, Mr. Whiteley saw the first patient the 1st of April; the last, the 14th of June. The complaint appeared inflammatory the first two or three days; then followed excessive depression of spirits and prostration of strength. In some cases venesection seemed indicated; but although it relieved the symptoms, it very much increased the depression and prostration of strength; these last symptoms were cured by the cinchona. The complaint lasted from two or three days to a fortnight. Mr. W. saw one hundred and fifty cases, of which two died, both old people, of infirm constitutions. The severest symptoms were pain in the head and back; in some, an inclination to vomit and pain in the stomach, were always relieved by an emetic. Mr. W. had heard of the complaint both at Hull and at York before he saw it. Its progress was extremely rapid for the first fortnight or three weeks. Those most exposed were most subject to the attack; more adults than children. It was always attributed to cold by the patients themselves. Measles preceded this epidemic. Mr. W. did not observe that pneumonia, the most prevalent complaint in the spring months, was more frequent or more unmanageable.

At Hutton Bushell, about six miles from Scarborough, Mr. Smart saw the first patient the 3d of April, and the last the 6th of May. It again made its appearance the 13th of August, on which day Mr. S. was called to six patients; three in one house. It ceased about the 27th of the same month.

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month. "The disease began very suddenly, with cold tremors, sensation of cold water trickling down the limbs; then followed heat and sweat, and dejection of spirits. Pain in the head, especially in the orbits of the eyes. The albuginea appeared red, but its vessels were not turgid. Pain in the breast with cough, which went off without expectoration. In numbers the pain in the head and breast alternated. When great dejection of spirits prevailed, the sick complained of a dull heavy pain, like a weight fixed upon the back part of the head. Pains like rheumatism or erratic gout were felt in the extremities, but never continued more than two or three minutes at a time in one part, or in the same limb. While these pains occupied the limbs, the head and breast were relieved. Pulse little disturbed; tongue covered by a yellowish crust; thirst never distressing. Mr. S. never bled. Nor did he lose a patient. He administered an emetic in all cases, and where necessary an opening medicine; and conducted the cure with antimonials, &c. His best cordial was a limited allowance of Port and water. The cinchona in no instance seemed to do good. Mr. S. never had recourse to a blister, so much recommended; but does not know any case in which a complaint of the lungs was left behind. During the prevalence of the influenza in the spring, we had mild weather succeeded by easterly winds, which are very severe on this coast. The epidemic abated as soon as these cold winds began to blow. Sore throats then were frequent, by many called influenza, but wanting the characteristic symptoms of that disease. Mr. S. saw many sore throats whilst influenza prevailed; but never in cases of true influenza did he see sore throat. During the time this epidemic prevailed in August the heat was intense and the country burnt up. Scarlatina anginosa and pertussis succeeded the first appearance of the influenza. The former continued to prevail about three weeks; of the latter there are still some instances, (Sept. 18). Two of them are in the same house; a child and an adult. "In this house the influenza prevailed in the spring; but neither of my present patients had it. Nor do I recollect that any patient has had the influenza, who had been previously attacked by scarlatina or hooping cough; or vice versa." Mr. S. did not at the time make inquiry whether the influenza patients had previously had either of the other diseases. It is worthy of remark, that in villages near the sea, the scarlatina prevailed before the influenza began, seemed suspended

suspended during the epidemic, and first appeared again in those very villages.

At Easingwold, thirteen miles north of York, approaching the high hills of Hambleton, Mr. George Cock observed the influenza made its appearance the latter end of March; it became gradually more general till the middle of April, and by degrees declined. The first symptoms were slight chilliness and shivering, soon followed by violent rigors and alternate heat; the pain in the head, especially in the forehead, now became extremely distressing; shortness of breath, tightness and pain in the chest, with harrassing cough, hardly admitting relief; scanty expectoration; coryza; the discharge from the nostrils excoriating the lips; an uncommon irritable state of the stomach also supervened. Except in a few delicate females the pulse was hard and corded; in most cases strong and bounding, from 100 to 120 beats in a minute; the tongue white and parched, with cracks; occasionally smeared with dirty looking mucus; thirst very great, urine clear and high coloured, with every mark of excessive excitement. The predisposed to pulmonic disease had hard struggles. "In almost all cases, I found it necessary to use the lancet, and often very freely; in one instance, twice in twelve hours, fourteen ounces each time. The blood always exhibited the buffy coat; and as soon as it began to flow, the pain both in the head and breast was generally relieved, and the patients said they felt *lighter*. In hardly any case did I find it produce the debility medical men have so much remarked and dreaded in this disorder. In weak females I found six or eight leeches frequently applied to the temples and breast alternatively give great ease, where general bleeding was inadmissible." A grain of tartarized antimony and twelve of ipecacuanha operated well, and brought up a large quantity of bilious matter, which relieved the sickness. Blisters applied to the breast and between the shoulders were of great service. Small doses of pulvis antimonialis with saline mixture, opiates at night, and attention to the alvine discharge, generallly terminated the cure. "After the urine began to deposit a sediment, the bark and other tonics were of the greatest service. I only saw one fatal case, which was an old man, who had been a sufferer by thoracic inflammation many times before." Mr. C. had no reason to think the disease contagious.

At Thirsk, ten miles beyond Easingwold, to the westward of the Hambleton hills, Mr. Wasse informs me, the complaint

complaint was more mild than in other situations. He had no patients under his care whose illness gave him much anxiety, The disease made its first appearance in his practice on the 23d of March; "it was confined to six or eight cases until the 10th or 11th of April, when it suddenly became very prevalent; more so I think in the villages and farm-houses than in Thirsk." It appeared more general about the 26th of April; and before the 15th of May had pretty generally declined. "During this time I saw a great number of patients, most of whom required no medical aid at all. I only used the lancet in one case, a strong middle aged man, who sunk more after the operation than I expected. In a few cases I applied blisters where the lungs seemed more than usually affected, but found the complaint very readily give way to small doses of tart. antimony, with pulv. ipecacuanha, &c. The symptoms sometimes began to abate in a few hours; in a day or two were generally much lessened, and in six or eight were entirely gone, leaving the patients uncommonly much weaker than I expected. The predominant symptoms were an incessant and violent cough, with slight pains in the chest, rigors, languor, and what I conceived characteristics of the disease, a peculiar white tongue, and a violent distressing pain in the head; pulse seldom so much affected as might have been expected from the urgency of the other symptoms; extreme thirst was very rare." The circumstance of this disease becoming general in the whole district as it were at once, and whole families seized at the same time, Mr. W. thinks, does not support the idea of its being contagious.

At Masham, about thirty miles N. W. of York, and twelve or fourteen west of Thirsk, in a very high and mountainous country, Mr. Baines observes, that the influenza made its appearance about the middle of February. It was not however distinguished by that name till later, nor did Mr. B. begin to compare it with the influenza which prevailed in April and May, 1802.

"The general symptoms were pain across the forehead with vertigo; shivering or chilliness, generally in the afternoon; obstruction of the nostrils, with inflammation of the pituitary membrane; dryness and soreness of the fauces, and other catarrhal affections; sickness, and an inclination to vomit, for two or three days; pulse about 90, seldom quicker; tongue white, but moist; little thirst; bowels for the most part costive; urine higher coloured than usual, and generally letting fall a copious sediment;

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on the third day a pretty free discharge taking place from the mucus membrane of a greenish colour, without smell; severe cough. Those who coughed severely, complained of great pain across the thighs, in the arms about the insertion of the deltoid, and in the sides. Unless the disease made an attack upon the lungs, the patient was never confined to the house, nor were his symptoms exasperated by his going abroad. Those whose illness rendered confinement necessary, had all the appearance of pneumonic affections. Yet, although patients of this description expectorated much, I never perceived the least tinge of blood. The discharge had rather a purulent appearance. In all cases whatever, the complaint continued, after the first three days, much the same, till about the fourteenth day, when the patient gradually recovered, but so slowly that a month generally elapsed before he was quite well. Very few died, and those who did, died by suffocation. The influenza raged most in April and May. After the month of June few persons applied for medical assistance; an idea about that time beginning to prevail that the disorder must have its course, and that waiting patiently was all that was necessary."

Mr. B. observes, "That when the influenza made its way into a family or village, it generally spread through the whole of it. On the other hand, I never was called to attend a patient living in a high situation; nor have I ever heard of its being known in the villages situate on the sides of hills, of which there are many in this neighbourhood. Mr. B's mode of treatment coincides pretty much with what has been already mentioned. It does not appear that he used the lancet.

Mr. Smart, of Hutton Bushell observes, that in one case a person employed to shave another, beginning in the influenza, although this circumstance was unknown to him, went home and complained of the disagreeable smell of his customer's breath, and in less than three hours was attacked with the disease; had it very violently; but his wife, who slept with him the whole time of his illness, escaped. Mr. S. met with several similar instances. In almost every instance, irregularity or excess, especially in drinking, caused a relapse. "In one person who was convalescent I ordered red port and water without specifying the quantity, and when I visited the next day, found he had taken the moderate allowance of *two bottles*, which brought on a relapse that had nearly proved fatal."

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Comme j'ai encore un peu de blanc, observes the anonymous collector; I will add, that I have executed your request in the most ample manner I conveniently could. I regret the delay; it is not, however, chargeable to me—you will therefore acquit me of the imputation. The details of this disease are curious in several points of view. It is undoubtedly the same complaint; and whatever latitude we allow to our fallible means of observation, it has been singularly modified by extraneous circumstances. How different the complaint at Easingwold and at Thirsk, only ten miles distant, and in many particulars, especially in situation, &c. not very dissimilar. If, however, we inquire into the seat of the disease anatomically, we shall find it, I believe, universally the same, and only varying in degree. The *mucous* and *fibrous* membranes seem chiefly to have been affected by the influenza. The former, covering the inside of the mouth, nostrils, anterior parts of the eyes and eye-lids, fauces, trachea, and all its pulmonary ramifications, œsophagus, and stomach, &c. and the excretory ducts of the numerous glands which open upon its extensive surface, were universally affected. Of its effects upon that part of this membrane which lines the intestines we have little evidence. It has apparently had some effect upon the biliary and probably upon the pancreatic ducts. Large portions of the *fibrous* membranes, especially the dura mater, linings of the orbits, the ligaments, fascia and strong folds, which separate the muscles, and perhaps the periosteum itself, may, without improbability, be considered the seat of some of those erratic or more durable pains so frequently characteristic of this disorder. In cases of greater severity it is probable the affection has been extended, especially in the predisposed, to the *serous* membranes, particularly those forming the lining of the thorax, and the covering of the lungs. With respect to the question of contagion, there are too many points unsettled to admit of my touching upon it at the close of this long paper. All the diseases commonly acknowledged to be contagious, seem to require something extraneous and in addition to the poison itself, in order to produce that spread we call an epidemic. The history of the plague and American fever, by which we learn that they neither of them rage at all seasons, seems to support this inference. The former ceases to extend its ravages at a particular time, although little or no precaution is taken by the inhabitants of Egypt to arrest its destructive progress. And to whatever degree the

the people of America may be supposed to carry their efforts for that purpose, they do not secure their large cities from feeling, at the return of the season, the inefficacy of them. Facts of a similar tendency occur not unfrequently in measles, scarlatina, and hooping cough, and I believe also in small-pox; I can therefore readily suppose the influenza infectious; so may be common catarrh, and yet requiring something more to become epidemic.

105. Mr. FIELDHOUSE, Stafford, Sept. 22, 1803.

Mr. Ward and myself are fully convinced of its being highly infectious, and ground our opinions upon the following circumstances among many others which occurred.

Mr. Ward's family living in the country, and detached from any house, continued free from the complaint until a late period, when Mrs. Ward paid a visit to some ladies who were ill in Brewood; she was attacked in three days after being in the family, and returned home. About the same distance of time, a little niece that they kept was seized; the child hanging about Mr. Ward, he was taken ill, with a lady and the rest of the family. A schoolmaster, in Brewood, (a small town) kept his scholars and family unconnected with the rest of the inhabitants for a considerable time, and till the complaint had nearly disappeared; during this period they continued perfectly free, but upon taking off that restriction and mixing with the people, they were all soon attacked. A ladies school that I attended kept perfectly free by the constant use of the nitr. & ol. vitriol, notwithstanding the complaint raged at the next door; being a school lately begun, possibly they took more pains in using the fumigation; certain it is, however, that family never had it.

How far these cases may tend to clear up the matter I know not, but this you may depend upon, that they are facts.

106. Mr. WILKINSON, Sunderland, Sept. 28, 1803.

The first appearance of the epidemic catarrh, occurred on or about the 6th of February; prior to this period, the hooping-cough had greatly prevailed among children, and in some instances proved fatal to those of younger years. Some cases of cough, accompanied with slight catarrhal symptoms, took place in persons advanced in years, particularly those who were predisposed to asthmatic affections, or what is usually termed the *tussis senilis*. These last

last were relieved by the application of blisters to the chest, mild pectoral anodynes, and the external use of flannel.

Some were attacked with colicky complaints of the bowels, accompanied with diarrhœa and gripes, which were relieved by sudorific anodynes, the occasional use of *ol. ricini,* and the same external covering.

From the 15th of January to the period in which the epidemic catarrh took place, several cases of *cynanche tonsillaris* fell under my observation; and in two or three instances, where the tonsils were not much tumefied, were accompanied with slight cough, pains in the chest, and some degree of *pneumonic* inflammation.

As the month of February advanced the sore throat went off, and the disease continued to increase gradually, I mean the *influenza*. It attacked a considerable number of people at once, in March, and went on progressively to the latter end of April, when it gradually diminished as the weather became warm. In May, however, some solitary cases took place, which assumed the typhoid form; even in June several instances occurred; and towards the latter end of July, myself and another person were affected, which confined me two days in bed, and some days in the house. The most urgent symptoms were, great depression of strength; pulse from 90 and sometimes to 120; pains in the limbs, particularly the loins and head, the latter was always the most distressing; in some, considerable difficulty of breathing took place, with incessant cough, and *pneumonic* inflammation. In others the appearances or symptoms varied much, and were very mild, so as neither to confine them in bed nor within doors. In the parish work-house which I attended, where there were about 280 paupers, consisting of every age and sex, five were at once attacked on the 7th of March; the day following seven more became ill, and a day or two after thirteen others were affected; afterwards it continued to go on, so that in the whole, not more than thirty-seven, or at the most forty patients out of this great number catched it.

On the 8th I saw seven patients in the Seamens' Alms-houses, which are in an open airy situation, forming a small square, containing in number about thirty persons, the rooms rather small, but not inhabited by more than two persons. These had been suddenly attacked a day or two before, at one and the same time; five were men, and two women; their ages varied from sixty to seventy years; the former laboured under violent *pneumonic* inflammation with symptoms of pyrexia, &c. and bore V. S. remarkably well,

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by which, and the use of blisters to the chest, antimonials, and mild anodynes h. s. they very soon recovered. Four more fell ill of the disease; the proportion was seven men to four women. The women and two of the men were but mildly affected. No others out of the whole number caught the complaint, although the women and their husbands slept together.

Generally speaking, it evidently appeared that the symptoms of direct debility were more predominant in persons under forty or fifty years of age; than those younger, in them the inflammatory symptoms were more strongly marked, particularly in men. In the work-house none of the patients were bled; the disease in the men having taken on the appearance of typhus, and they recovered more slowly, while the women were more mildly affected, except in two or three instances, where the disease terminated in *phthisis*. In these, however, a predisposition to cough seemed to occur prior to the attack of the disease. Children in general, especially those under eight or ten years of age, were but little affected with this complaint; and what is not a little remarkable, this was the case with those in the work-house, in which there were a great many: several had laboured under the hooping cough; and as the warm weather advanced in June, July, and August, many were seized with measles, and some with scarlatina anginosa, from which they recovered with little or no medicine.

In no one instance under my care do I recollect that this disease, simply considered, proved fatal, except in one case, where it attacked a woman in her *accouchement*. Pregnant women appeared to suffer more than others; in them the inflammatory symptoms, such as cough, dispnœa, attended with pneumonic affection, were more strongly marked; hence it appeared that moderate v. s. and that well-timed, became in them a *sine qua non*, and in all other instances where such evacuation was indicated, it always proved beneficial. It may not be here improper to observe, that in almost every case where blood was drawn, that it assumed the cup or concave appearance of the coagulating lymph on its surface. In two or three cases, where the inflammatory symptoms nearly approached to suffocation, and which occurred in patients that were previously subject to inflammatory affections of the thorax, bleeding was repeated two or three times, and to this I attributed their recovery. In these I had hesitated to use the lancet at the commencement of the disease, from an idea of depressing the system, a fear to which many practitioners were perhaps subject,

subject, whereby not a few have been lost, that otherwise might have survived. It did not appear that any age or class of persons, if we except young children, were less exempt than others, nor were those within doors less liable than those exposed to the open air; and the proportion of males to females affected, so far as I can discern, were nearly on a par. Mariners were not uncommonly attacked at sea; some of these were affected at that period with syphilitic complaints, and were under an alterative course of medicine; on shore, the same effects ensued with perons under smilar circumstances. In some instances where the disease was nearly cured, as in gonorrhœa and inguinal tumours nearly dispersed, these seemed to reappear, or were otherwise aggravated. In general it happened, that whatever might be the indispositions to which certain persons were habitually affected, these were aggravated even where no appearance of influenza existed; but when it took place, and continued for some days, it seemed to participate of typhus.

Some females, particularly from forty to sixty years of age, where menstruation had ceased, were violently attacked with acute rheumatism, such as tumefaction of the wrists, knees, ancles, &c. accompanied with symptoms of pyrexia; in these the catarrhal affections were more mild and generally unattended with *pneumonic* inflammation: they gave way to the lancet. Antimonials combined with calomel, sudorific anodynes at bed time, and the decoct. cort. salicis in the remittent state of the disease being given, greatly facilitated their recovery. In two cases I had previously exhibited the *decoct. cinchonæ* with a view to determine its comparative powers with the former; but although it was taken freely for more than two days, yet no amendment took place, while in those who took the decoct. salicis, under similar circumstances, prior to using it in these two, the febrile paroxyms and recurrence of the pain were speedily prevented.

Of the efficacy of *this* decoction in the speedy recovery of those patients already named, I am the more convinced, as at that time I well knew some female patients affected in like manner, who were treated nearly in a similar way, and took the cinchona without benefit. One of these, after being ill for near a month under the care of another gentleman, consulted me. She was treated in the way already noticed, venesection being premised on account of the symptoms of pyrexia still remaining; these being removed, with the assistance of the salix decoction, she was perfect-

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ly free from her complaint in eight days, but continued it for two days more. Before I became acquainted with the *salix*, I had repeatedly tried the *cinchona* in similar situations, but it fell far short of it. Relapses were not very common, or rather few had the disease twice, except where they were incautious in exposing themselves too soon in the open air; I do not recollect more than half a dozen, of 120 whom I attended, in whom the disease re-appeared; but in these it was usually more violent.

The treatment I adopted was, venesection where indicated, but this I used only in urgent cases, combined with inflammatory symptoms, or in peripneumonia, *pulv. antim. gr. ij. ad iij. calomel, gr. ad ij.* 6 *quaq; hora.* Vesicatories, and these often repeated *sterno vel scrobiculo cordis*, gentle anodyne sudorifics h. s. to abate the violence of the cough, and the salix decoction in the intermittent or convalescent state; the use of wine according to circumstances, in sago, tapioca, or Indian arrow root; and as the strength and appetite returned, light animal food, &c. I never had recourse to emetics, as the alteratives in the form of a bolus already named, where nausea or sickness prevailed, generally acted in this way, and where constipation existed, usually produced starts, exclusive of their general effects on the system by exciting a copious perspiration. In some cases this remedy, as is well known, has acted in these three ways at once, with infinite advantage to the patient, and that with more certainty than antimonials singly.

This epidemic, to the best of my recollection, as I was then a young practitioner, bore some resemblance to that in 1782, which commenced in the latter end of May, and continued till near the beginning of July. It was I think more generally diffused, and more violent in its effects; it appeared to be less combined with *peripneumonic* inflammation, and not so much to require the lancet. Several died, but many fell victims to phthisis pulmonalis, while great numbers, as in the present, were but slightly affected.

A similar disease took place in 1788, but this participated more of the mild catarrh, and it was not so general in its progress, nor alarming in its effects. An epidemic sore throat prevailed nearly at the same time, but this was not very dangerous, neither did the catarrh require bleeding, being less inflammatory.

To determine precisely whether the epidemic disease of which we are now treating be contagious, is what I shall not attempt, although in that which occurred in 1782, I entertained but little doubt that it was. But this opinion was

was formed more from a general belief of its being so, and the manner in which its progress was traced, than from any idea I at that time had formed of my own. Entering into a discussion pro or con on the subject, is what I am totally averse to, as this must be referred to more decisive facts or positive proofs, than has been to *me* hitherto advanced. The following extract of a letter just received from a friend, an eminent physician in the county of Norfolk, I beg leave to insert, in which although nothing strictly positive is inferred; yet the difficulties with which it appears to be involved, are so candidly set forth, that it would seem not so easy a task to decide on this question, as either party have so positively asserted.

" It is very hard to produce facts for or against the influenza being contagious. I have known so many instances where a patient has died of the *typhus gravior*, without any one of the family suffering the slightest symptom of fever, that no argument can be drawn from the circumstance of only one person in the family having had the influenza. But I think that of whole villages on the Norfolk and Suffolk sides of this country being attacked in one night's time with the disease in question, depended upon what the old writers call an *occult* quality in the air, and not on contagion. If persons be exposed to the same air, diet, and fatigues, they are subject to the same diseases, independant of infection communicated from one to another. Soldiers and officers, whether they use public or private privies, become in the same proportion affected with dysenteries, when they are equally exposed to the same camp fatigues and diet. Very few medical men have had so good an opportunity as myself of proving this fact.

" The luxury of an Indian army is such, that an officer has generally a small tent to himself for a privy; yet a similar proportion of *these officers* were on my sick report labouring under dysenteries, as of those privates who had the public privies to go to. But it is easy to argue against this conclusion, though the fact be admitted, Nothing is easier than to raise doubts against facts which can be produced for or against contagion. Still I am inclined to think that the prevailing state of the air of a country has more to do with most epidemics, than the infection that is imparted from the sick to the surrounding air of a room or camp.

107. Dr.

107. Dr. MARSHALL, Lynn, Norfolk, May 15, 1803.

The influenza appeared here between two and three months ago; but whether it is to be ascribed to the state of the air, or to contagion, doubts have arisen.

From *tolerably good authority*, it was said to have appeared in this neighbourhood, in some almost insulated situations, much about the same time that it was first remarked in towns. At this period, I observed instances where it was introduced, apparently, by contagion into families, through which it seemed to be gradually propagated. In some instances, it was ushered into families, but made little or no progress.

Upon the whole, considering the almost innumerable means of intercourse now introduced into most parts of this island, I am inclined to think that it was the offspring of contagion; although, from the invisibility of the poison, it was extremely difficult in some cases satisfactorily to trace it. This is most certain, that neither the thermometer nor the barometer indicated any thing unusual in the state of the air.

The disease certainly ended sooner in towns than in the country; and so far as my own experience extended, it began sooner there also. This, as you justly observe, "*looks more like infection.*"

The disease, I have understood, first appeared in London, and it did not reach Edinburgh till two or three weeks after. This marks progress, and certainly favours the opinion of contagion.

The flying soil of Norfolk no longer exists. What was once the reproach of the county, is now its pride: By means of sheep and turnips, together with a spirited system of husbandry, it is completely arrested, and converted into fertile land.

P. S. Since I wrote the preceding, I have been informed from good authority, that in some of the distant hamlets, the influenza is not yet entirely extinct.

108. Dr. DUNCAN, senior, Professor of Medicine, Edinburgh, Sept. 25, 1803.

I think I can answer your question, respecting the date of the appearance of the late influenza at Edinburgh, with tolerable accuracy, as I have already had occasion to make diligent inquiry on that subject. It must however be allowed that influenza is very apt to be confounded with common

common catarrh from cold, a very frequent disease in this country at every season, but particularly during the winter. From this circumstance, even the most discerning practitioners may be deceived with respect to the commencement of influenza.

The first well-authenticated case of influenza in Edinburgh during the year 1803, of which I have been able to obtain any accurate information, was that of Mr. M'Donald, of Powder Hall, who was attended during his complaint by my worthy friend Mr. John Walker, surgeon.

Mr. M'Donald, with his wife, his son, and his daughter, were in London in the beginning of 1803. They left London on the third of February, at which time the influenza was very prevalent there; but they did not know of their having been in any house where there were individuals subjected to that disease. When they set out on their journey they were all in perfect health.

They arrived at Berwick-upon-Tweed on the 8th of February, and were there in a house where there were several persons subjected to influenza. They arrived at Powder-Hall, situated within a mile of Edinburgh, on the 9th of February. The next day, Mr. M'Donald himself was attacked with severe febrile symptoms, attended with uncommon prostration of strength, and all the other appearances which most frequently occur in influenza. Soon after Mr. M'Donald was attacked with this disease, almost every other person in his family, amounting to near a dozen, were attacked in succession. But its progress, as far as I could learn, was not immediately afterwards very rapid in the city of Edinburgh, and I did not myself attend any case where the disease was distinctly marked till the 23d of February, when I was called to a gentleman dangerously ill of the disease, several of whose family had before been affected with it in a much slighter manner.

By the end of February, the influenza was very common in Edinburgh, but as far as I could judge, both from my own observation and that of others, a greater number of patients were subjected to it about the end of March, than at any other time. It did not make its appearance in my own family till the 21st of March. The first of my family affected with it was my youngest son, a boy about nine years old, at the High School. At that time, many of his companions laboured under the disease. Six others of my family were afterwards affected with influenza in

succession;

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succession; but neither Mrs. Duncan nor I were subjected to it, and two of my servants also escaped the disease.

When the influenza prevailed in Edinburgh during the summer of 1782, I had a severe attack of it; but Mrs. Duncan escaped that epidemic as well as the present, although all the rest of my family were subjected to it.

I observe by the Medical Journal of London, that several of your correspondents are inclined to think that influenza is not a contagious disease. I am decidedly of a different opinion. The contagion of influenza is not indeed conveyed on the point of a lancet, to be intentionally communicated like small-pox. But from all that I have been able to learn of the history of this disease, as recorded by eminent writers for many centuries past; from all that I have seen of it during former epidemics; from its progress during the present epidemic with very different states of the atmosphere, when passed from Paris to London, from London to Edinburgh, &c.; from its progress in Edinburgh after it appeared in this city; and finally, from its progress in my own family after its introduction into my house, I have no more doubt of the contagious nature of the influenza, than I have of the contagious nature of measles, chin cough, or typhus fever.

By the last volume of the Annals of Medicine, published at this place about the beginning of May, you will observe that very exaggerated reports respecting the frequency and fatality of the influenza, were propagated at Edinburgh. The accounts of the fatality of the disease in particular were very highly exaggerated. During the late epidemic indeed I attended several patients who were dangerously ill of the influenza; but I did not attend one to whom the disease proved fatal; and, in a great majority of cases, nothing was necessary but prudent attention to regimen. Indeed I am persuaded, that in the treatment of the late influenza, practitioners more frequently erred from doing too much than from doing too little.

I have now certain evidence, that the deaths from influenza were by no means numerous at Edinburgh. This is demonstrated by the register of burials in the Gray-Friars Church-yard, which you know is the principal burying place in this city. During the months of March and April, the numbers of burials from all diseases were each week as follow:

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From March 1 to March 8	—	—	—	19
From ditto 8 to ditto 15	—	—	—	25
From ditto 15 to ditto 22	—	—	—	12
From ditto 22 to ditto 29	—	—	—	15
From ditto 29 to April 5	—	—	—	28
From April 5 to ditto 12	—	—	—	29
From ditto 12 to ditto 19	—	—	—	24
From ditto 19 to ditto 26	—	—	—	20
Total number of burials for the eight weeks during which the influenza was most prevalent at Edinburgh.				172

Although therefore it was positively asserted by some, and believed by many, that no less than one hundred persons, dying of influenza at Edinburgh, had been buried in one day, I am convinced that during the prevalence of this epidemic at Edinburgh, for the space of three months, the whole deaths from influenza did not amount to one hundred, when taken altogether.

The influenza however had probably some influence on the bills of mortality at Edinburgh; at least, during the first quarter of the year 1803, more burials took place in the Gray-Friars Church-yard, than during the first quarter of the preceding year. In the months of January, February, and March of the year 1802, the number of burials was 158; but during the same months of the year 1803, the burials amounted to 238. Thus there was a difference of no less than eighty, which might, I dare say, be principally attributed to the influenza.

109. Dr. Speer, Trim, Ireland, July 24, 1803.

The influenza made its appearance in this county the middle of February last, and disappeared the beginning of June. It first originated in towns, and afterwards spread gradually over the entire country, confined to no class of people. The inhabitants of low and marshy situations, and adults, suffered much more severely than those residing in airy or more healthful situations; the very heavy rains and moisture of the atmosphere which then prevailed, made both a variation in the symptoms and frequency of the disease.

People of debilitated or relaxed habits suffered much more severely, and were much more subject to relapses than those of a solid fibre. In fine, the symptoms of the late epidemic,

epidemic, so far as I am capable of observation, were Proteus like, consequently the mode of treatment must have varied. The incipient symptoms in its first stage were excessively violent, and ushered in with universal debility and lassitude, *vertigo, nausea,* violent *ophthalmia, angina,* sometimes *cynanche maligna, excessive pain in the loins, loss* of *rest* and *appetite*. But in general did not prove fatal to any who were properly attended to, except adults and valetudinarians who previously laboured under pulmonary affections; on the other hand, convalescents suffered by extreme debility for a considerable length of time, which daily, among the lower class, terminates in dropsy.

110. Mr. Rewell, Cheltenham, October 8, 1803.

The influenza made its first appearance here towards the end of February. It was very general, but except in a very few instances, was extremely slight and hardly to be distinguished from the common catarrh.

In the cases which were more severe, there was a tendency to debility after the first three or four days with very considerable expectoration. In this stage of the complaint, I found it necessary to have recourse to tonics. The severe cases, however, were very few. I do not recollect seeing or hearing of any instance of its proving fatal. Very few cases occurred after the first week in April.

111. Mr. Thoresby, Holywell, North Wales, Sept. 12, 1803.

The first patient with influenza I was desired to visit, was on the 12th of February, but I have been informed it had made its appearance in this neighbourhood at rather an earlier period; during the months of March, April, and the beginning of May, it was most active, and in many instances that occurred under my observation, shewed symptoms of high pulmonary affection, where bleedings and vesicatories became expedient and salutary. It seemed principally to affect adults, and proved fatal to those only far advanced in life. It may not be improper to remark, that during the prevalence of this malady, I attended a maniacal patient; the family in which he lived consisted of eleven persons, ten had the influenza, and the majority of them in a severe manner; three constantly slept in the same room with this person during the whole progress of the disease, and experienced the full effects of its power, yet the catarrhal affection did not extend its influence in the least apparent degree to this patient. Whether this epidemic

mic disease originated from atmospheric miasma, or from contagion, I will not undertake to elucidate; certain it is, I have known seven or eight persons fall suddenly ill the same day, in the same family; in others they have progressively sickened at the expiration of six, seven, or eight days; and in several instances I could enumerate, it shewed only a partial appearance, where several had it severely, while others escaped; none more observable than in my own family, three had it only out of six very slightly; and though I had been in the habit of visiting many patients daily, yet I was fortunately unworthy its attack.

To Dr. BATTY.

Dear Sir,

THE enclosed Case was communicated to me by Dr. Thackeray. I think it well deserves to be laid before the public; and if you agree with me, I beg you will insert it in the Medical and Physical Journal.

I am, &c.

Liverpool,
August 10, 1803.

JAMES CURRIE.

On the 10th of November last I was called to see a young lady in Shropshire, who had been attended by Mr. Cartwright, a respectable surgeon and apothecary at Oswestry, whose case was as follows. M. V. æt. 18, with light hair and a pale complexion, had been some time subject to affections in the stomach and bowels, indigestion, flatulence, costiveness, great oppression at the præcordia, nausea, with occasional vomiting and singultus. Her catamenia had been profuse, and followed by fluor albus. All these symptom had increased and been accompanied by spasmodic affections, at length arising to general convulsions. During these convulsions the belly was for a moment soft and again hard and contracted, and the spasms extended to the thighs and legs, arms, back, and neck. These general convulsions occurred four or five times every day. She had besides an irritating cough, dyspnœa, flushings, and night sweats. She was become very feeble, and seemed declining rapidly. I first ordered an emetic, and afterwards various antispasmodics, as bark, camphire, asafœtida, opium, and the warm bath. She had besides

fomentations and clysters. These procured some temporary relief.

I was sent for again on the 18th, and all the symptoms were increased. The cough was more troublesome with considerable expectoration, and the chills and flushings more frequent. In addition to the antispasmodic medicines, the digitalis was prescribed with castor; one grain of the powder was ordered every four hours, and the dose was at length augmented to two grains and a quarter. The pectoral and spasmodic affections were both strikingly relieved, but sickness, vertigo, and the other peculiar effects of digitalis coming on, it could not be continued.

I was sent for again on the 30th, and found all the complaints aggravated. The spasmodic affections were now constant and exhausting, and the general convulsions occurred more frequently than ever, were accompanied by the abolition of consciousness, and followed by delirium. The spasm extended to the bladder, and occasioned great distress. She complained particularly of burning heat in the sockets of the eyes, and acute pain of the whole tongue, both of which were somewhat relieved by pressure. Her stomach rejected every thing, cordials as well as the simplest food. She was extremely emaciated and unable to stand upright. All the usual remedies being exhausted, and the case appearing dangerous in the extreme, I determined to try the affusion of cold water, as recommended by Dr. Currie, of Liverpool. She had been affected by vomiting for upwards of half an hour, with little or no discharge; the abdomen was hard and contracted; there was considerable dyspnœa; the pulse was rapid and irregular, the skin cool and rather clammy; shiverings had come on, terminating in general convulsions and insensibility, under which she was lifted out of bed and placed under the cold-shower bath, containing nine gallons of water, her head having been previously shaved to increase the impression. The water descended upon her and in a moment her consciousness returned and the convulsions disappeared. Her pulse sunk to 80, her breathing became regular, and her stomach was found to bear nourishment. She became quiet and composed. In the course of the day the convulsions returned, and twice they were relieved in the same way by the cold affusion. They returned the third time at eleven at night, and the remedy now seemed to have lost its effect. She passed a restless night with repeated convulsions and vomiting. About eight in the morning she was however sensible, and she said she thought the failure of the bath

bath the last time of trial had been owing to its not being used properly, the water having fallen upon her shoulders, and not on her head. She desired to have it tried again, and in a full stream. Her directions were followed; the water descended suddenly and profusely on her head during the next general convulsion, and again the symptoms vanished and consciousness was restored. She now fell into a quiet sleep, which lasted several hours, and she awoke from it wonderfully refreshed and composed. Some slight partial spasmodic affections re-appeared, but the general convulsions have never returned, and she has increased in strength every day. The cold affusion was directed to be repeated morning and evening, which is still continued, and two pills were directed to be given thrice a day, containing at each dose half a grain of cuprum ammoniacale, the same quantity of opium, three grains of calcined zinc, and four grains of the extract of cicuta. I ascribe the recovery however entirely to the cold affusion used during the existence of general convulsion. Written January 24.

February 12, 1803. For a month from the 30th of December, she continued well and had recovered her flesh. She persevered in the bathing night and morning, and drank a pint of wine daily.

On the 27th of January the catamenia appearing, they discontinued the bath. Sitting in the evening with her family she was suddenly taken as before, with general spasms, dyspnœa, vomiting, and delirium. In this state they put her under the shower-bath thrice, which instantly removed her complaints, but the effect was transitory.

On the 28th at twelve at night, I saw her, and found her in the same state as formerly, but with delirium. Her situation was in some respects very singular. She would sit up in bed with twitchings all over her, particularly affecting the head, &c. and repeat passages of poetry, sometimes losing a word, but not recovering it when suggested to her, or appearing sensible that the suggestion was made. This continued several times. She also wrote a letter to a friend, directed it, and enclosed it to a peer. Some hours after, remaining in the same state, she read a favourite paper in the Rambler, and got part of it by heart. When she found herself perfect, she desired me to hear her repeat it. She gave me the entire sense, but altered many of the words. I then ordered thirteen gallons of iced water to be dashed over her at once; but though it brought her to her senses, she said it did not produce the same relief as the shower-bath, nor was it followed by the same comfortable

glow.

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glow. We therefore employed the shower-bath that night four times in all, and every time with sudden and striking advantage, the patient recovering her senses in a moment. The last time was at three o'clock on Sunday morning; at ten, eleven, and one, she took three draughts with 70 drops of tinct. opii, and 25 of tinct. digitalis in each, without the least apparent effect. No sleep. Sickness, vomiting, and spasms continued on Sunday morning.

"The shower bath was repeated twice or thrice a day, and after the fourth day at noon no spasms or convulsions returned.

The Case continued by Miss V.

"From the time you visited us, she had no spasmodic return till the 14th of March, when her head was dreadfully afflicted.

"In the night of the 16th she felt an uncontrolably ravenous appetite, though no aliment taken at the time would remain five minutes on her stomach; this craving returned at the same hour each succeeding night until the 21st, after which it never affected her in any degree, (that night she took the first of the three doses of calomel you ordered).

"On the 26th, 28th, and 29th, she had repeated and severe spasms in her head; in every instance the shower-bath, (and she used it fourteen times in twenty hours) has infallibly afforded instantaneous though temporary relief.

"On the 31st, symptoms of the influenza, confirmed on the 2d of April, and attended by a spasm in the head.

"April 9, all effects of the influenza had nearly disappeared, her spirits, strength, appetite, sleep, all seemed restored to their wonted state.

"Immediately on awaking in the morning of the 26th, a dreadful attack in her head, which recurred daily till the 29th, with the most aggravated and distressing symptoms; sudden stupors, from which she was roused with the greatest difficulty, and during which her countenance was drawn and distorted with involuntary motion; great alienation of mind without any previous complaint of pain; these alarming appearances subsided gradually by the repetition of the bath, and she had no recurrence of spasm till the night of the 9th of May, which attack may be imputed to the irritation occasioned by a journey of nearly forty miles, and a previous sleepless night. (She was on her road to Abergally.) She had a slight return on the morning of the 10th, another on the 15th, a much severer one on the

24th

24th, two on the 25th, but unattended with stupors or alienation of mind, being able each time to walk down one flight of stairs to the shower-bath, which always had the usual good effect.

"In the night of the 29th, a very violent spasm.

"On the 30th, two fainting fits, great oppression at her chest.

"On the 1st of June, a dreadful attack in her head and stomach; delirium and convulsions, without sleep, till the 6th."

I was with her on the 4th, and did not leave her room till the morning of the 6th. From Sunday at eight in the evening till four the next morning she took 350 drops of laudanum, 9 grains of opium, and 85 drops of tincture of digitalis, *without the least effect*. The shower-bath alone checked the convulsions and brought her to her senses, and we were compelled to have recourse to it once, twice, or oftener in an hour. It required three people to take her down stairs; but the moment she was placed in the tub, she became quiet and clasped her knees with her hands. As soon as the water touched her head, she exclaimed, "I am well." Clothes dipt in a strong solution of ammonia muriatis, and applied to the head, were of great use.

On the 10th she had a most violent diarrhœa, which continued till the following evening. This was easily removed, and she is now in good health.

An Abscess in the Breast, *occasioned by a fractured Rib, attended with Symptoms supposed to have had a cancerous Tendency, successfully treated; and a* Steatoma, *possessing the greatest Part of the Neck on the right Side, removed. By* John Moodie, M. D. &c. *Senior Physician to the Bath City Dispensary.*

A Lady of a delicate constitution, aged twenty-eight, had been some years subject to a cough, which returned with more or less violence every winter. She had also frequent attacks of sick head-ach, and a spasmodic affection, attended with fever, thirst, anxiety, and costiveness, with most of the symptoms which accompany the *asthma spasmodica* distinctly marked, and sometimes a diarrhœa.

In the course of an extensive practice, several cases of this kind have occurred, in the cure of which I have generally

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rally experienced the most beneficial effects from cold bathing. Having ordered the most powerful medicines, usually prescribed in similar complaints, to this patient, without the desired effect, I therefore advised the use of the cold bath in the summer and autumn months, which, together with a healthy residence in the country, entirely removed her disorder.

In treating of this subject, the account of Dr. Smollett's case, related by himself in the following lines, may not here be unworthy of public notice: "In consequence of a cold caught in France, I was seized with a violent cough, attended with fever and stitches in my breast, which tormented me all night long without ceasing; at the same time I had a great discharge by expectoration, and such a dejection of spirits as I never felt before. In this situation I took a step which may appear to have been dangerous: I knew there was no imposthume in my lungs, and I supposed the stitches were spasmodical; I was sensible that all my complaints were originally derived from relaxation; I therefore hired a chaise, and, going to the beach, about a league from the town, plunged into the sea without hesitation. By this desperate remedy I got a fresh cold in my head, but my fever and stitches vanished the very first day; and, by a daily repetition of the bath, I have diminished my cough, strengthened my body, and recovered my spirits."*

June, 1793, the lady aforementioned accidentally leaning over the ledge of a window, to remove a bird cage which had been placed on the outside, received a hurt about two inches below the right breast, which at the time was attended with considerable pain, and a sense of internal uneasiness. Upon examination soon after the accident, there appeared a small tumour and discoloration of the skin; the part was painful to the touch, but respiration was free; she had no sickness at stomach, or any other unfavourable symptoms. By the application of the *linimentum saponis cum opio*, in a short time the tumour diminished, and the part resumed its natural appearance.

Early in August she went to Weymouth for the benefit of sea bathing, but soon after her arrival at that place she was frequently seized with sickness at stomach, attended with violent retchings. Bleeding, sedatives, and a due attention to regimen were directed, but afforded no re-

* Smollett's Travels.

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lief. Having remained about a month at Weymouth, and being unable to bathe, she returned to the neighbourhood of Bath; but, notwithstanding the use of such medicines as were deemed proper by the most eminent physicians of that place, the sickness at stomach and vomiting still continued. Upon examination of the side where she received the hurt, she now informed me that she felt a pricking pain, at times extremely acute, just below the right breast where there appeared a small enlargement, but without any discolouration as formerly observed; I therefore had no doubt that one of the superior ribs had been fractured, or detached from its cartilaginous adhesion to the *sternum* especially as she was sensible of the motion of the bones, which now and then occasioned great pain, accompanied with spasm, especially when she attempted to raise herself in bed. Leeches were repeatedly applied to the tumour, and rest in a horizontal position was enjoined. And when the inflammation was reduced, *emplast. thuris* with a moderately tight bandage was applied to the part; the body was kept gently laxative, and the following mixture directed:

℞. Mist. camp. ℥vß. spt. æther. vitriol. comp. ʒiß. tinct. opii. gutt. xxx. syr. tolutan. ʒiij. m. sumat. cochl. ij. ampl. subinde urgente spasmo.

About six weeks after the sickness at stomach and spasms were entirely removed, but there still remained a small enlargement of the breast, extending to the part where she received the hurt. However, nearly two years elapsed before there was sensible increase of the tumour; meanwhile she used the cold bath in the summer and autumn months, and generally enjoyed good health.

Toward the end of 1795, she at times complained of a pricking pain where she had received the hurt; the skin was somewhat discoloured, the breast considerably enlarged and uneven on its surface, attended with irregular pains shooting into the axilla and adjacent parts. A gentleman of the faculty recommended a discutient plaster to be applied to the tumour; after which it rapidly increased in size, with acute pain in the breast, and evident symptoms of the suppurative process going on. The lady having used considerable pressure upon the part by means of tight bandage, the fluid made its way into the breast, where it appeared to be contained in different cysts, which were moveable and circumscribed, and the glands in the axilla became greatly enlarged.

January, 1796, two eminent surgeons were consulted, and

and were of opinion that the disorder had a cancerous tendency; however, they thought it might be advisable to try the effects of some powerful discutient previous to the operation. Accordingly the following cataplasm was directed warm to the part, and renewed twice a day:

R. Sal. ammon. crud. ʒij. acet. vin. alb. ʒiv. aq. pur. ℥iv. farin. lini. q. s. m. et fiat cataplasma.

The above having been continued about a fortnight without any alteration, a blister was applied to the most depending part of the tumour, and kept open near three weeks with *ceratum sabinæ;* the discharge was very considerable, but the pain and irritation reduced the strength of the patient, and occasioned such violent spasms, that it was thought prudent to discontinue the use of the cerate.

At a second consultation, the gentlemen abovementioned were unanimously of opinion, that there could be no doubt of the tumour being a real cancerous affection of the breast, and contended that it had a connection with a steatomatous enlargement of her neck, which they imagined proceeded from a scrophulous habit, the tumour being at this time much inflamed and enlarged.

The gentlemen were therefore of opinion, that immediate recourse should be had to the operation, in order to remove such part of the breast as should be found cancerous. Being myself of a different opinion, I requested the operation might be deferred about a week, especially as it appeared to me that Nature was then making an effort which I had no doubt would soon relieve the patient. Emollient cataplasms were now applied twice a day to the breast, and the bark, in substance, was ordered to be taken freely.

On the 29th of March, when raising herself in bed, an opening was observed in the abscess large enough to admit a common probe, from whence issued a small quantity of lymphatic fluid; but as the opening was not sufficient to allow the tumour to empty itself freely, I made a puncture with a lancet in a longitudinal direction, about three quarters of an inch in extent, at the thinnest and most depending part of the abscess, which instantly discharged about a pint and a half of well digested pus tinged with blood. A pledget of digestive was applied to the orifice, and the poultice continued some days. The lady being much weakened by the discharge, a nourishing diet with port wine was recommended, and a drachm of Peruvian bark in powder four times a day, with an opiate at bed time.

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Soon after, several small exfoliations from the rib, extremely irregular on their surfaces, and of a carious appearance, passed through the orifices, which continued open, with a considerable discharge, upwards of two months. During this time another opening burst about an inch below the former, which discharged a quantity of purulent matter, and a number of exfoliations came away of the irregular appearance as those aforementioned.

Having continued the bark for some time, she gradually recovered her strength; and from that time till the date of this paper, she has not experienced the smallest degree of pain or inconvenience from her breast, or rib which had been fractured.

This patient was also affected with a large steatomatous tumour on the right side of her neck, which had been increasing near fifteen years; it was much larger at its basis than any other part, and extended from the right mastoid process to the clavicle on the same side; and from all the vertebræ of the neck to the mastoid muscle, under which a part of the tumour was situated. It was not attended with pain, but had an unpleasant appearance. Various external remedies had been applied, but effected no sensible alteration or diminution of its size.

During her illness she rested much on that part of the tumour which was most prominent: this circumstance probably accelerated the formation of pus. On observing this tendency, every means were used to promote the suppurative process by emollient cataplasms applied warm, and renewed two or three times in twenty-four hours, in order to convert the substance forming the steatoma into a purulent abscess.

About ten days after the commencement of this operation, there appeared a fluctuation of pus in some parts of the tumour, which I requested to open with a lancet. The patient refused to submit to this operation, but had no objection to the caustic, which was immediately applied to the most depending part of the abscess. And, at this time, and several months after, large lumps of a suety substance resembling tallow, by means of gentle pressure, was discharged from the orifice, with now and then a quantity of purulent matter tinged with blood. During the inflammatory state the application of an emollient poultice was continued.

It has been generally observed, with respect to steatomatous tumours, that it is absolutely necessary that the whole should be removed if possible in the operation, and

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not to trust to the effects of dressings: for, if any part is left behind, there have been instances of the tumour arriving at its former size in a few months, and where a repetition of the operation became necessary.

However, in this case, it was impossible to remove the whole at once, as there remained a considerable degree of inflammation. But by means of gentle pressure, during the time the discharge continued, the substance was effectually removed. Since that time, there has been no appearance of any enlargement, and scarcely a scar now remains perceptible.

Scrophulous induration and enlargement are easily distinguished from a cancerous affection of the part, by not being attended with pain, even when greatly increased in size. If it tends to suppuration, it has not in general that craggy feel and unevenness of surface peculiar to cancer ready to burst; and when it suppurates, discharges good pus, which cancer never does. An induration from external violence, affecting the breast, requires the most careful attention. But we are not possessed of any means of knowing that an induration so occasioned will terminate in cancer, if it does not yield to the proper treatment in order to disperse it.

When such induration or scirrhus is occasioned by external injury, it is rather a favourable circumstance, and a presumption that it will not terminate in cancer; and when such induration, or scirrhus, immediately succeeds the external injury, it is a more favourable appearance than when it attacks the part some considerable time after.

In either case, it may remain without pain or unfavourable symptoms for several years, and may quickly become dangerous and alarming, attended with the characteristic symptoms of cancer, and that the external injury was the exciting cause, without the occurrence of which, the person might have passed through life without any inconvenience from the disease; it is, therefore, necessary to be guarded in our prognosis concerning an induration thus occasioned.

Bath, September, 1803.

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE following Case was communicated to me by Mr. Carter, who had been a witness to the sufferings of the patient, and the success of the operation, when he was with Mr. Harrison. It is extracted from a letter of Mr. Harrison, addressed to Mr. Carter, when attending the hospitals in London; and was drawn up at my request, for insertion in your valuable Journal.

"Mr. William Dixon, of the Green Yew, Winster, of a strong muscular make, robust constitution, and about sixty years of age, became affected with a slight pain in the left side of his face about six years ago; which gradually increased, and assumed all the characters of the dolor faciei, as described by Fothergill, and others, in its most distressing state.

"It is, therefore, unnecessary to enter into a minute detail of the symptoms; suffice it to say, that the most trifling exertion, such as pulling the bed-clothes up, or turning in bed, would excite the most excruciating agony.

"He was often unable to bear shaving on that side of his face, until he had sat with his legs in warm water for a considerable time. He was not able to eat a bit of bread till after he had undergone the operation for his disease.

"I first saw him on the 15th of April, 1802. Pain and misery were, perhaps, never more strongly pictured on any living countenance than on his. He had been under the care of several respectable practitioners; taken cicuta, mercury, gum guaiacum, bark, &c.; and applied leeches, blisters, and various other stimulants, without the least alleviation of his sufferings.

"I was decidedly of opinion, that nothing but the division of the infraorbital nerve would be likely to relieve this dreadful complaint; and he submitted to the operation with the greatest fortitude; assuring me, that nothing could add to the tortures he already endured.

"The incision was made of a semilunar shape, an inch in length, through the integuments of the cheek, immediately below the infra-orbital foramen; through which the nerve passes from the fifth pair, to be distributed to the face, and in some instances sends one or more branches to communicate with the portio dura of the seventh pair.

"Notwithstanding the knife apparently reached the bone,

bone, the whole length of the incision, yet I was convinced the nerve was not divided, from his not complaining, nor even distorting a muscle. I therefore introduced the fore-finger of my left hand into the wound; and feeling the hole through which the nerve came with a sharp pointed scalpel, made sure that nothing remained undivided between it and the bone.

"The pain this produced was so severe, that it forced a shriek from the most determined fortitude I ever saw; and, instantly applying a finger to the left angle of his upper lip, he exclaimed it was quite numbed.

"After the hæmorrhage had ceased, the edges of the wound were drawn together by means of sticking-plaster, and dressed superficially; after which he ate and drank with a degree of pleasure, which I shall never forget.

"The wound healed by the first intention; and, from the moment when the nerve was divided, I have the satisfaction to add, he has never had the least return of his complaint.

"From the concealed and deep situation of the nerve, immediately after it issues from the infra-orbital foramen of the maxilla superior, and from what happened in this case, I am confident, that in performing the operation, simple as it is, the nerve may easily escape the knife; and unless it be detached from its connection with the sensorium commune, no relief can be expected.

"I am, &c.

Yelverton,
June 6, 1803.

"WILLIAM HARRISON."

This case deserves attention; and, if surgeons will observe the hint here given by Mr. Harrison, time will shew, whether the operation so frequently fails from a re-union of the nerve taking place, or from its not being divided.

In the last number of your Journal is a letter from a gentleman, whom I am under the necessity of calling the late Mr. Dennett; in which are expressed two opinions, totally differing from those commonly entertained.

The first is, that in inoculation, incision produces less inflammation than puncture; the second, that dry variolous matter produces a milder disease than fluid.

Were the latter opinion well founded, I apprehend the discovery would soon have been made by every other considerable inoculator. To that character, with respect to the small-pox, I never had any pretension; but having inoculated some hundreds with dry matter, as well as with fluid, I never could distinguish any difference in their effects.

With regard to vaccine inoculation, I never had the least idea, that in publishing an account of his mode of preserving and inserting the virus, Mr. Dennett meant any thing more than to ensure infection. When I read, in your Journal for 1801, that his manner of inserting it was by making three or four incisions or scratches across the arm, about one-fifth of an inch long, and only half a line apart, I dreaded consequences far worse than those which Mr. Dennett has recorded, as arising from puncture.

Such consequences, I have great reason to believe, no puncture, or vaccine vesicle excited by puncture, ever occasioned, or ever will occasion, unless the arm be irritated by some other cause. It is, however, not unnecessary to observe, that even the puncture ought to be small and superficial. For ensuring infection by this mode, fluid matter is preferable to dry; and from much experience, I confidently affirm, that it is not more virulent, as Mr. Dennett supposed.

Much worse cases than that recorded by Mr. Dennett, occurred at Clapham; partly, if not entirely, in consequence of incisions; of which your Journal bears ample testimony.

Had not the case in question been more severe than common, no practitioner in the neighbourhood would have been consulted. It would be easy to mention several worse cases occasioned by incision; but over these, hoping, and believing, that the practice is on the decline, I wish to draw a veil.

Many practitioners have discontinued incisions in consequence of my request; and have confessed, what indeed is apparent to others as well as to themselves, that their practice is much more successful than it was before.

Mr. Dennett acknowledges, that the blood is not infectious, yet disapproves of inoculating more than one person with one vaccinator. It was not necessary for him to do this; nor is it necessary for me: but it may be necessary for practitioners, in a situation remote from the metropolis, when the small-pox is raging on every side, and they can procure but a scanty supply of matter. In such cases, every one must use his own discretion.

I have exerted my utmost efforts to prevent that necessity, by facilitating the conveyance of matter on very small instruments; twenty or thirty of which may be contained in a single quill. Hence there is less occasion to inoculate more than one person with one instrument.

The demand for cow-pock matter is still considerable; but

but the sources of supply are much more numerous. The Royal Jennerian Society has already opened thirteen stations, besides a central house. At all these places, matter is distributed free of expence.

I am, &c.

New Street, Hanover Square,
October 12, 1803.

JOHN RING.

A Case of Incontinence of Urine; *communicated by* Mr. R. Cooke.

THERE has occurred to me of late several cases of persons afflicted with incontinence of urine, which evidently appeared to be occasioned from *blows* received on the loins, and which have baffled every medicine which has been given to *relieve*.

P. L. aged 38, a strong, healthy man, received, while at work, a violent blow across the loins from a truck, which almost immediately caused his urine to flow involuntary. At first, there was considerable symptomatic fever, for which he was ordered saline medicines; the bowels were kept open, and at night an opiate was given. The next day a blister was applied across the loins, and the fever subsiding, the tinct. cantharid. was administered, afterwards alum, camphor, volatiles, opium, zinci, calcin, &c. &c. but none of them had the least influence over the complaint. Electricity and cold bathing were also employed, but with no better effect. The sal martis was given, and after this the bark with valerian, but to no good purpose, except that of improving the man's general health.

The pain in his back, which he originally so much complained of, is in a great measure removed, but his mind is made miserable with the reflection of his never again being capable of following his usual employ.

Last week I had an opportunity of seeing another case very similar to the above, and which has every appearance of proving equally distressing.

My only motive for requesting the insertion of the above is in hopes that some useful observations may be thrown out respecting the treatment of such a very formidable and unmanageable disease.

London, Oct. 11, 1803.

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Understand that in one of your late numbers, you have noticed the introduction of the Cow-pox into this island; if any credit is to be derived from it, I believe I may claim it. In July, 1801, I procured the vaccine matter in Liverpool; and on my arrival here in September following, inoculated nine girls at a parish school, in one of whom only the pustule was produced, and from her I propagated the disease. I have kept no regular account of my number of patients, but may safely affirm that Mr. Caddele, a surgeon, who afterwards inoculated in conjunction with me, and myself, produced the cow-pox in more than 1000 persons, blacks and whites; in no one case were any more pustules produced, than incisions were made. In some, after the disease had run its course, trifling eruptive complaints seemed to be excited by it, and in a few robust children, elevated itchy whales about the limbs and body accompanied the formation of the pustule, but a slight medical treatment removed these; in no other respect did the disease vary from its usual progress. As I was the original introducer of the practice here, (and I believe first succeeded in producing the disease in the West-Indies) the novelty of one disease preventing another for life, excited many doubts of its efficacy; and notwithstanding the inoculation was encouraged by the most respectable inhabitants, and every exertion was made by myself, Mr. Caddele, and I believe other practitioners, the island has been now destitute of matter for some months, from the want of subjects to re-produce it. I trust when next we procure a supply, to find less difficulty in diffusing its benefits.

I am, &c.

Barbadoes, June 10, 18[illegible]3. H. E. HOLDER, M. D.

P. S. I brought the vaccine matter from Europe between plates of glass, defended from the access of air by strips of bladder pasted round the edges. On thread, the heat of the climate appeared quickly to render it inert.

On

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On the Use of Scarifying and Cupping; by N. Broussonet, M.D. Communicated by our Correspondent at *Paris.*

WHY have certain remedies, commonly employed by the ancients, been neglected by the moderns, so as hardly to find a trace of them in the works of the present day? Has experience proved that these remedies were altogether useless? or have others, more efficacious, been substituted? No; but it will be answered, they are no longer the fashion.

The author tells us, that he hardly commenced practice when he determined to give a trial to the actual cautery, from which he experienced as surprising advantages as are set forth by authors; in short, such as to justify all that Pouteau has said in its praise. It remained to make trial of cupping and scarifications, but the prejudices of people against this remedy prevented the author from proposing it in private practice. In the army, however, he had ample opportunity of giving this practice a fair trial during three years. Here he found the superiority of scarification in some cases in which blisters and rubefacients are recommended. He confirmed the observations of Stoll, on the advantage of cupping in catarrhal peripneumony, particularly in those cases which prevailed in the army of the western Pyrennees during the winter of 1794. The circumstances in which M. Broussonet was placed, gave few or no opportunities of ascertaining its effects, except in internal diseases; but last year a case occurred to him, which in many points of view the author thinks important.

On the 16th of July, a carter, aged forty, of a bilious temperament, received a kick of a horse under the left hypochondrium; the stroke was so violent as to knock him down senseless; on coming to himself he vomited. When the author arrived, the patient complained loudly of pain, which he felt above the place where the stroke was received; there was no echymosis, the pulse was small and intermitting, and the body covered with a cold sweat; he had taken a little wine, and in this state he continued till evening. During the Author's absence he fell into a state of coma, which returned from time to time, and during which interval he complained much of pain; in this state he found him at six o'clock in the evening, when the part was scarified and cupped. The operation was hardly begun when the patient fell again into coma; the pulse becoming much stronger

stronger the cupping was repeated four times, after which the scarified part was covered with a bread and milk poultice, and the section of the abdomen was covered with cloths rung out of emollient decoctions; the patient rested by intervals, and towards the morning he passed with his urine a considerable quantity of blood; this confirmed the author that the spleen and kidney had been violently contused, besides which the small hard pulse, the difficulty of breathing, and the pain which the patient referred to the xiphoid cartilage, left little room to doubt of an injury being done to the diaphragm.

17th. In the morning the scarifications and cupping were repeated. The patient was relieved, the pulse was stronger; the tongue became foul on the right side. Although there was more reason to apprehend a bilious than an inflammatory fever, yet by way of precaution, and to remove spasm, about two ounces of blood were taken from the left arm; the cupping was repeated, and the patient passed a somewhat better night. Since the accident, he had taken but a light tisanne; clysters were frequently administered.

18th. The pain was less violent, the patient was twice cupped, and the urine was as in a state of health.

19th. He found himself much better, and felt an appetite for food, which he was not however permitted to use. The pain was yet considerable on changing position. The author feared a deposition, in which he was justified by the event.

23d. In the morning the patient complained of weakness, and immediately afterwards was in the greatest agonies. When the author arrived, the pulse was not perceivable, the extremities were cold, the teeth were covered with the *fatal* mucus; in short, the patient was about to expire. The author did not long hesitate on the means to be pursued; it was the seventh day from that of the accident; convinced that the animal powers were not exhausted, he still hoped; Two blisters were put on the legs, two on the hypochondria, and cupping glasses were once more applied over deep scarifications on the affected part. Towards noon the patient seemed to return to life; in the evening he was better, and during the night he evacuated a quantity of black bilious matter by stool, which formed probably the deposition, and the sudden evacuation of which into the intestines terminated the disease. Since this day the patient recovered, and in the course of ten days could resume his usual occupation.

From

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From this case, the author thinks we may estimate the benefits arising from the application of cupping and scarifying; it enables us to judge too of the excellence of that leading precept, of bleeding repeatedly in contusions of the viscera. The author thinks, that if he had employed this method, that a bilious fever would have been the consequence, and which he could not have checked, or else the system would have been so exhausted as to be unable to make that salutary and critical effort which terminated happily the disease. The progress of the complaint also shews, that when Nature is not disturbed in her operations by an unnecessary and ignorant interference on the part of the practitioner, that she follows in external diseases the same course as in internal ones. In this case, the fourth day of the disease indicated the crisis which took place on the seventh.

CASE *of a* VARIETY *of* INTERMITTENT FEVER, *accompanied by Symptoms of* HYDROPHOBIA, *and forming an* INTERMITTENT HYDROPHOBIC FEVER, (Febris Hydrophobica); *read at the Medical Society of Montpelier, by* C. L. DUMAS, *Member of the National Institute, President of the Society, &c.*

THE moderns, observes the author, have improved no part of the practice of physic so much as our knowledge of intermittent or dangerous remittent fevers. This order of diseases offers the best proofs that can be brought to establish the certainty and resources of the medical art; here the best answer is found to the detractors of a science, which has so many titles to the first rank amongst useful inventions. If the physician was ever worthy of being compared to God, it is doubtless when calculating the unavoidable dangers of a remittent fever left to itself, he can announce the precise moment when it shall terminate either favourably or otherwise. The probability of death following a certain number of paroxysms of this fever; that of a cure succeeding the timely and judicious administration of bark, are facts founded on the united testimony of such multiplied observation as to amount to unquestionable certainty. In enumerating the symptoms and dangerous consequences of intermittent fevers, Torti remarks those only which he had most frequently met with. The dangerous symptoms

symptoms which this celebrated practitioner enumerated are cholera morbus, dysentery, bilious discharges, sweats, syncope, long continued shivering, and lethargy. Hence the fever was particularly characterised according to the predominant symptom; such as, the choleric, hepatic, dysenteric fever, &c. Mercatus had already noticed many of these species under the head of varieties of the dangerous tertian fever; all the rest he comprehended under the title of fevers, which became dangerous from some foreign cause, (pernitiosæ ob aliquod accedens quod lucerescit); he adds too, other circumstances of difference which Morton has elegantly marked. Torti, who did not think necessary to speak of appearances which he had not seen, does not however exclude them. All fevers which become dangerous from the association of some symptom are tacitly comprised in the first division, and agreeably to him should be treated according to the same method. (Omnes nihilominus quotquot sunt que vitæ periulum inferunt ex quovis adjuncto symptomate tacite comprehensas eademque simul methodo curandas.) Among the symptoms which Morton has noticed connected with intermittent fevers, we principally find those of pleurisy, peripneumony, cephalalgia, rheumatism, &c. Lautter has described fevers accompanied by epilepsy. Galiazzi gives instances of fever attended by all the symptoms of asthma. Torti speaks of a double tertian accompanied by delirium. Alibert, speaking of irregular intermittents, notices very accurately those fevers which have delirium for a leading symptom. Delirium, observes the author, is an affection which takes on a great variety of characters. A horror of liquids, and a wish to bite whatever comes near, are modifications which are sometimes observed; such instances are however uncommon, though they must have been met with in practice. A kind of symptomatic madness, which comes on in certain cases of malignant or putrid fever, and which frequently accompanies inflammation of the stomach and angina, has been already remarked. Boerhaave gives the case of a man who attended criminals to the place of execution, and was suddenly attacked with fever, of which he died at the end of three days, and during which he drove from him with horror every kind of fluid. Salius Diversus mentions the case of a spontaneous hydrophobia which develloped itself in a woman of 36 years of age, at the conclusion of pestilential fever, and during which the hydrophobic symptom was so remarkable, that she could not suffer a person to drink in her presence. Hippocrates mentions a case of fever

fever where this symptom was predominant; and similar instances are to be found in Koehler, Massa, Hoffman, Sauvages, Mead, James, and many others. Vogel speaks of hydrophobia when treating of fevers, and says that it may spontaneously occur in the course of high inflammatory fevers. Selle says that spontaneous hydrophobia may occur in the course of many fevers, particularly of the nervous kind. There can be no doubt, observes M. Dumas, but that the same symptom may occur in the course of intermittent fevers; but as yet, facts are wanting to prove the truth of this association. The only one within the author's knowledge is given by Lentieri, in the case of an old man, who after exposing himself to cold was attacked with a remittent fever of a malignant kind, accompanied by delirium and a horror of water, but which disappeared on the use of bark. Nor has Lentieri mentioned all the details necessary to characterize accurately the *febris hydrophobica remittens*. M. Dumas having found no instance of this kind in any medical work, considers himself entitled to the credit of being the first to give an account of this particular fever, with all its attendant circumstances.

In the year 1793, the author had occasion of observing a fever of this kind in the Civil Hospital of Lyons, and since which period he has constantly mentioned it in his medical lectures; and Dr. Alibert, on his testimony, has reckoned it among the varieties of irregular intermittents in a dissertation which he has published on the subject, but it has been no where described as in the history of the following case.

A man, forty-five years of age, of a dry temperament, nervous, iritable, melancholic, a heated imagination, and violent character, and who had for a long time given himself up to singular irregularities of regimen, was obliged to pass many nights in a tent exposed to the firing of cannon, and the explosion of bombs; laying himself down on damp ground he fell asleep, but was soon awakened by a sense of cold and general uneasiness. The following day he experienced some giddiness, accompanied with pain in the head and every unpleasant sensation throughout his members. At night he had a shivering fit, followed by slight heat, obscure vision, loss of appetite, and prostration of strength. These symptoms appeared on the 26th of August, 1793.

27th. The patient was free of any similar sensations, except that he complained of cephalalgia, and continual vomiting of greenish matter, which fatigued him much. The pulse and heat of the body were natural.

28th. At night a shivering came on, succeeded by a stronger

stronger degree of heat than after the preceding attack, accompanied by ardent thirst, a fixed pain about the throat, difficulty in swallowing, and slight delirium. The patient was ordered an emulsion with nitre, and after the conclusion of this access he was brought to the hospital.

29th. M. Dumas found the remission of the fever complete. He appeared however in a state of stupor and dejection, and complained much of a tightness in the muscles of the neck; at night there was a slight degree of fever but unaccompanied by either cold or sweat; the pulse retained a degree of irregularity sufficient to excite mistrust; an emulsion with nitre and a clyster were the only remedies used this day.

30th. There was a very decided access of fever, and the characters of a tertian intermittent were manifest; the paroxysm was marked by some disagreeable appearances, and it exceeded the former both in strength and duration. The heat was considerable, the delirium furious, with convulsive motions in the muscles of the neck and lips, and deglutition became more difficult. The patient was violently agitated, threw off his bed clothes, struck his breast, and complained of the tightness of his throat, and which the impression of fluids increased; the tongue was dry with red edges, and blackish in the centre; and to judge from the motions of his members, one would have thought the patient already far advanced in an acute disease. The emulsion was continued as before, except with the addition of camphire; and fomentations of vinegar to the legs, with the application of four leeches to each ankle, were ordered. The access was prolonged to a late hour of the night, accompanied by the same symptoms throughout.

September 1. All the symptoms had disappeared, and were suceeded by a perfect calm; and with the exception of a singular dislike to drink, and a difficulty of swallowing, the patient experienced no inconvenience.

This sudden change from what was observed the preceding day engaged all the author's attention, and led him to suspect that he had something unusual to combat in the disease.

[To be continued.]

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An Account *of several* Cases *of general* Diseases *cured by the* Extraction *of decayed and diseased* Teeth: *In a Letter to Dr.* Edward Miller, *of New-York, from* Benjamin Rush, *M. D. &c.*

SOME time in the month of October, 1801, I attended Miss A. C. with a rheumatism in her hip-joint, which yielded, for a while, to the usual remedies for that disease. In the month of November it returned with great violence, accompanied with a severe tooth-ach. Suspecting the rheumatic affection was excited by the pain in her tooth, which was decayed, I directed it to be extracted. The rheumatism immediately left her hip, and she recovered in a few days. She has continued ever since to be free from it.

Soon after this I was consulted by Mrs. J. R. who had been affected for several weeks with dispepsia and tooth-ach. Her tooth, though no mark of decay appeared in it, was drawn by my advice. The next day she was relieved from her distressing stomach complaints, and has continued ever since to enjoy good health. From the soundness of the *external* part of the tooth and the adjoining gum, there was no reason to suspect a discharge of matter from it had produced the disease in her stomach.

Some time in the year 1801 I was consulted by the father of a young gentleman in Baltimore, who had been affected with epilepsy. I inquired into the state of his teeth, and was informed that several of them in his upper jaw were much decayed. I directed them to be extracted, and advised him afterwards to lose a few ounces of blood at any time when he felt the premonitory symptoms of a recurrence of his fits. He followed my advice; in consequence of which I had the pleasure of hearing from his brother that he was perfectly cured.

I have been made happy by discovering that I have only added to the observations of other physicians, in pointing out a connection between the extraction of decayed and diseased teeth, and the cure of general diseases. Several cases of the efficacy of that remedy, in relieving head-ach and vertigo, are mentioned by Dr. Darwin. Dr. Faber relates that Mr. Pettit, a celebrated French surgeon, had often cured intermitting fevers which had resisted the bark for months, and even years, by this prescription; and he quotes from his works two cases, the one of consumption, the other of vertigo, both of long continuance, which were

were suddenly cured by the extraction of two decayed teeth in the former, and of two supernumerary teeth in the latter case.

In the second number of a late work, entitled, " Bibliotheque Germanique Medico-Chirurgicale," published in Paris, by Dr. Bluver and Dr. Delaroche, there is an account, by Dr. Siebold, of a young woman who had been affected for several months with great inflammation, pain and ulcers in her right upper and lower jaws, at the usual timeof the appearance of the catamenia, which, at that period, were always deficient in quantity. Upon inspecting the seats of those morbid affections, the Doctor discovered several of the molares in both jaws to be decayed. He directed them to be drawn, in consequence of which the woman was relieved of her monthly disease in her mouth, and afterwards had a regular discharge of her catamenia.

These facts, though but little attended to, should not surprise us when we recollect how often the most distressing general diseases are brought on by very inconsiderable inlets of morbid excitement into the system. A small tumour, concealed in a fleshy part of the leg, has been known to bring on epilepsy. A trifling wound with a splinter or a nail, even after it has healed, has often induced a fatal tetanus. Worms in the bowels have produced internal dropsy of the brain, and a stone in the kidney has excited the most violent commotions in every part of the system. Many hundred facts of a similar nature are to be met with in the records of medicine.

When we consider how often the teeth, when decayed, are exposed to irritation from hot and cold drinks and aliments, from pressure by mastication, and from the cold air, and how intimate the connection of the mouth is with the whole system, I am disposed to believe they are often the unsuspected causes of general, and particularly of nervous diseases. When we add to the list of those diseases the morbid effects of the acrid and putrid matters which are sometimes discharged from carious teeth, or from ulcers in the gums created by them, also the influence which both have in preventing perfect mastication, and the connection of that animal function with good health, I cannot help thinking but our success in the treatment of all chronic diseases would be very much promoted by directing our inquiries into the state of the teeth in sick people, and by advising their extraction in every case in which they are decayed It is not necessary that they should be attended with pain, in order to produce disease; for splinters,

ters, tumours, and other irritants before mentioned, often bring on disease and death when they give no pain, and are unsuspected as causes of them. This translation of sensation and motion to parts remote from the place where impressions are made, appears in many instances, and seems to depend upon an original law of the animal economy.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS I have long been convinced of the advantage of considerable pressure for the more ready deliverance of the placenta, and of its being otherwise of good effect, I send you the following observations on that subject.

Let us suppose the woman to be delivered. As soon as the child is born, and convincing myself that it breathes, and before tying the funis, I apply my left hand to the sacrum, and the right hand (both exterior to the clothes) to the parietes of the abdomen on the region of the dilated uterus. I then make a slight pressure with both hands, and increase it gradually till I have exerted sufficient force for nearly two minutes, unless interrupted by the pain (indicating a contraction of the uterus) as Dr. Hunter used to describe it. I frequently relieve my right hand during the pressure, with the idea of forming a kneading motion, as will be described below, but I always keep up the force I had gradually carried it to. I then secure the navel string and give the child to the nurse, when I again apply to the funis, and find the placenta waiting for me either at the os externum, in the vagina, or so as to be brought away directly or in a minute or two afterwards; if it should not, I apply pressure as before, and the business is generally compleated; but I should repeat it again and again, if necessary.

If we consult the different authors and lecturers on midwifery, we find a gentle pressure recommended by some of them on the parietes of the abdomen as soon as the child is born, "to press the air from the uterus, and to assist it in its contraction." But they do not, I observe, assign any reason why this pressure should be so slight; yet where it is necessary to introduce the hand into the uterus to turn the child,

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child, the attendant is told to press hard with both her hands on the abdomen, to prevent the uterus rolling; and this without a seeming notion of the pressure doing any harm, because it is not even mentioned afterwards, but they speak of a gentle pressure, as above mentioned, as if they conceived a stronger one would be injurious, or perhaps they may think a slighter pressure sufficient, as corresponding with what they intend to be effected by it; but as it does not by any means agree with my idea, I shall beg leave to assign my reasons for a continued strong pressure.

In labour in general there is more or less of faintness comes on when the child is born; this is ascribed to the fatigue of labour, to the discharge, and to the sudden taking off of tension. The latter I consider as the chief cause; and if so, pressure must be as advantageous as in the operation of the paracentesis, which no practitioner, I believe, would neglect.

The uterus, when the child is born, being left in a state of flaccidity, the muscular fibres I have imagined to be fatigued with their exertion, less disposed to contract during the faintness; that they could not be so soon excited to contract, having lost the distension, the irritating cause; that if it is the first child, the overjoy of the mother leads the mind quite astray from any thing further than its birth to be accomplished, and though it (the mind) may not have any voluntary power on the uterus: I conceive then it is our duty to promote its action, and this by means of pressure, which will assist it in its contraction; but as there must be frequently great atony and want of irritability, a gentle pressure of short continuance is not so likely to fulfil the intention as that I speak of.

Admitting the placenta to be urged forward by pressure, it is very clear that the hour glass contraction, as it is called, when this is practised, cannot take place, the muscular fibres of the fundus uteri not contracting, and those of the middle or sides of the uterus doing so, the pressure on the bulk of the placenta would overcome the circular contraction; I have thought so much of this, that if ever I was called to a case of retention of placenta, and it had been previously ascertained that there had been an hour glass contraction in former labours, I would endeavour to surmount it by pressure, rather than the introduction of the hand.

The unpleasant case of flooding after the child is born, will be less liable to be fatal where considerable pressure is used, for provided we should not think it right to immediately

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ately extract the placenta, pressure would approximate the sides of the uterus, and close these patulent vessels. If the placenta is extracted, still pressure is advisable, as the uterus may remain in a state of flaccidity from its inertness or inirritability.

I particularly recommend this to the consideration of your numerous readers; the application of considerable pressure in most cases of uterine hæmorrhage, I am persuaded, is calculated to be of advantage, and I am positive can do no harm. The matter, I conceive, speaks for itself, or I would encroach more on your time and patience to illustrate and enforce it. I am, &c.

W. MARSON,

Member of the College of Surgeons.

Worksop, Notts, Sept. 20, 1803.

OBSERVATIONS ON THE EFFECTS OF OPIUM ON THE HUMAN BODY, *by* Mr. F. WEBER, *of the Foreign Depot, at Lymington, Hants.*

TO acquire a perfect knowledge of the effects of opium on the human body, I have taken it myself for a length of time in all quantities, as far as prudence would admit, and under different circumstances; I have administered it to two medical friends, and to a number of persons in health in the same manner, and have observed its effects with attention on patients labouring under local and general diseases, to whom it had been administered as a medicine for various purposes.

From any single dose, sufficiently strong to produce sensible effects, I always experienced first certain sensations in the forehead, a kind of pressure and straining, the latter of which seemed to reach down to the eyes and nose, attended by an increase of vigour, confidence, and cheerfulness. Here it would remain had the dose been within two grains of solid purified opium. The effects would last an hour or two, perhaps with some dryness in the mouth and fauces, and then vanish, leaving sometimes a slight degree of costiveness behind.

If I had taken two or three grains, the said sensations in the forehead would insensibly increase to a slight confusion of thought and giddiness, a heat and sensible pulsation of the arteries in the head; flushing of the face; a sen-

sation of the eyes, as if they were swelled and the sockets not large enough to contain them; a slight degree of sickness; a dryness of the mouth and fauces; slightly diminished sensibility, and propensity to sleep; sometimes gripings and a strong contraction of the intestines.

These effects lasted an hour or two, whilst an elevation of spirits and watchfulness remained yet for an uncertain time behind; sometimes a few hours, at other times the whole remaining part of the day; as did likewise costiveness.

From four to six grains caused all the named effects in the same order, but in a higher degree and quicker succession. The pressure in the forehead increased often quickly and passed on to pain; there was also an itching in the nose, and not very rarely all over the body; hiccup, stupor, and strong propensity to sleep; startings, and a strange chaos of happy and disagreeable visions, if sleep sometimes surprised me whilst I was sitting in a chair, and a strong increase of confusion and giddiness, and sometimes when I recollected myself again, sickness and vomiting; impaired voluntary motion; stammering in speech and trembling; heavy uneasy eyes; contracted pupils and dimness of sight; finally, a dysuria with frequent involuntary interruptions in the stream of urine, costiveness cum gradu impotentiae. It is a curious, but not the less certain fact, that through all the stages of the effects of opium, the most cheerful flow of spirits not excepted, I perceived the latter phenomenon, which undoubtedly was owing to a want of due sensibility. I experienced these effects from four hours to a whole day, and sometimes longer, and a liveliness, activity, and watchfulness, rather in a higher degree than usual, which succeeded the former affections, viz. giddiness, stupor, sickness, &c. and seemed to be proportionate to them.

A lassitude and exhaustion, and strong propensity to sleep, were the late and last effects which I experienced, more or less, sooner or later, in proportion as the earlier effects had been more or less strong, and lasted a shorter or longer time. If, for instance, I had taken from four to six grains, at ten or eleven in the morning, I sometimes experienced a burning heat creeping throughout my limbs, but which was particularly strong in the palms of the hands, followed by exhaustion, at nine, ten, or twelve, or there abouts, at night; sometimes I experienced lassitude and propensity to sleep next morning, when I got up, at eight or nine; sometimes at noon, or any other time during the

the day or at night. I cannot exactly determine how long this state of relaxation lasted, but I think I sometimes felt it on the third and fourth day, after having continued most part of the second, or at least made its appearance on that day. From seven to ten grains caused, besides the former effects in a proportionate high degree, a distressing sickness and vomiting; violent gripings, lassitude, stupor and sopor, which continued a whole day.

Sometimes, if I had taken seven or eight grains only, I would be quite well the next day, if a sickness and even vomiting directly after breakfast did not remind me, that some effects were yet remaining. If I had taken full ten grains at once, I perceived the first day, giddiness, trembling, stupor, dimness of sight, great difficulties in making water, violent gripings and vomiting, if I ate or drank any thing; afterwards, continual but highly disturbed dosing.

Next day, though much milder, I perceived most of the said effects. On the third day I was well, active, and cheerful. On the fourth day I began to be despondent, tired and exhausted, and continued in that state to the sixth and even seventh day.

All the different doses of which I have enumerated the effects, I took, from one to three hours after breakfast, that is, between nine and twelve o'clock.

Not to use myself too much to opium, I sometimes left it off for a week; besides that, if I had taken a strong dose, I waited four, five, or six days without taking any, in order that no effect should escape me.

Half a grain of solid opium, taken every half hour; or a grain taken every hour; or a grain and a half taken every hour and a half, or every two hours, has insensibly brought on a happy humour, increased vigour, activity, and unusual watchfulness, which I perceived after having taken about two, three or four grains, and which continued if from time to time I repeated the same procedure for several days and nights, without the least inclination to sleep, without tiredness, or any impaired function, except dryness in the mouth and fauces, and thirst, occasionally gripings, and costiveness. I have made this experiment often, being a very pleasant one, and only the consideration of injuring my health, prevents me from repeating and persevering in it longer. When I discontinued the use of opium, taken in this manner, I perceived the second or third day after, the same stupor and exhaustion as I had experienced when I had taken the same

same quantities, which I had now used in small doses, at one, two, or three different times.

The longer the use of opium had been continued, and the greater the quantities which had been taken, the greater was the ensuing exhaustion, as might a priori be supposed, and the longer it lasted. If I had taken opium for a week or longer, from six to ten grains per day, and then suddenly discontinued it, the exhaustion and stupor would, though gradually diminishing, continue for three or four days, during which time I was unfit for any business. Once, when I had taken from eight to ten grains every day for about a fortnight, I perceived the second day after I had left it off, besides a high degree of lassitude, violent pains in the knee and hip joints, which became so excruciating at night that I could neither sit nor lie.

Determined at first to wait the event, I supported the pains till they grew so violent that my fortitude failed me, and I had again recourse to a dose of opium. At twelve o'clock at night a medical gentleman, who was with me, gave me eight grains in two pills, and in three quarters of an hour I perceived the usual sensation in the forehead, a glow in the face and head; my spirits began to raise; sensibility sunk, and ere I was aware of it all my pains had vanished. I blessed the power which I had cursed the moment before; pleasant fancies floated in my mind, and deprived me of sleep.

If at any time, in any degree of the said exhaustion and despondency, I took four, six, or eight grains at once, or in repeated doses; vigour and activity, and a disposition of the mind to happy reasoning took place, as soon as the opium began to operate.

I have taken opium for three weeks and never experienced any symptom of lassitude and exhaustion, (as the late conequence of former effects) because I at first took the same quantity every day, and afterwards increased the dose to two or three grains in the whole. I used to get up perfectly well and in good spirits, and remained so all the time till I took another dose, which was generally at ten, eleven, or twelve o'clock. The effects of solid opium, taken in pills, at the mentioned time, I could never perceive, before three quarters of an hour, sometimes a full hour, and not very rarely an hour and a half had elapsed.

Nor have I ever been able to discover any alteration in the pulse or general temperature of the body (though I have paid the strictest attention to both), which I could have attributed to a direct operation of the opium on the heart

heart and blood vessels. Neither have I found that opium affected the processes of the economy at large, nor, as will be perceived, was the appetite particularly impaired, those intervals excepted where actually sickness and vomiting, or high degree of stupor, or sopor, or exhaustion had been produced.

It will be superfluous to mention, that, in as far as opium causes rest and sleep, it must materially reduce the frequency of the pulse, the circulation being more slow during the latter than when the body is in a watchful and active state. The contrary takes place during liveliness and activity.

This is to be applied also to the general temperature of the body, and processes of the economy. Dissolved in any usual menstruum, opium produced effects in half an hour.

If taken with a small quantity of spirits or any liquid containing alcohol, or any warm fluid, the effects made their appearance sooner than usual.

Any meal taken withing half an hour or later after a dose of opium, speedily brought on all its effects, and it seemed in a considerable higher degree. Gripings, sickness and vomiting, I once or twice experienced directly after breakfast, having taken a strong dose the evening before. If taken within an hour after dinner, the effects appeared later than usual and were less in degree; I even sometimes could hardly perceive them at all, if the dose had been a moderate one.

The effects seemed to be the stronger, the more early in the day the opium had been taken. They were strongest if I were unwell, or if any thing had in the least deranged the functions of the economy; for instance, if I had been up all night, if I had been sick and vomited, and taken no food, two or three grains would have as much effect as otherwise four or five.

The effects were the stronger, the shorter the time since a former dose had been taken, even if the effects caused by the latter seemed to have subsided; if, for instance, I had taken two or three grains at ten or eleven o'clock in the morning, and giddiness, confusion, &c. seemed to have ceased at three, four, or five in the afternoon, a repeated dose would yet produce much stronger effects than the first. Again, if a grain or a grain and a half had produced little or no effect, the same quantity administered an hour or two after, caused exhiliration, pressure in the forehead, dryness in the mouth and fauces, &c.

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If I was in high spirits and very active; if I walked, or took such exercise as made me warm and perspire, the effects made their appearance considerably sooner, were less in degree and much less in duration. I have walked to Southampton, a distance of four miles from my former residence at Totton, (a small village) in a hot day, and whilst I was very warm and strongly perspiring, I took successively three pills on the road, each pill of 4 grains; so, that having taken a similar one half an hour before I set out, I took sixteen grains in about an hour and an half, of which I perceived much less effect, than when I took four or six grains at my usual hour coolly and quietly at home. Having been about an hour in Southampton, I walked home again, and I must confess that I did not feel the least effect remain whatsoever, not even elevation of spirits and watchfulness, but on the contrary I was tired and exhausted, as I should have been at any other time after such an excursion. The reader will perceive that this was at a time when I was in some degree used to opium. But I have made, I may say, a hundred similar trials which confirm the above. I have frequently taken the same quantity at the same hour as I did when I remained at home, and directly after walked out, or set off at a brisk pace on horseback, and always perceived that the effects made their appearance much sooner, were much less in degree, and lasted, instead of eight or ten, only two or four hours.

Under the influence of emotions, strong sensations, and any particular strong attention and exertion of the mind, the effects of opium appear later than usual, are less in degree, and much shorter in duration.

If it so happened, that the cause which disturbed my mind was removed, then all the effects would almoft instantly make their appearance and take their usual course.

Cold, rest, but particularly sleep, also retard the appearances of the effects of opium, and prolong them.

If I had taken any quantity during the day, in consequence of which only slight effects remained when I went to bed; in that case sleep would be the *means* of restoring perfect order to the functions of the economy.

Four grains of jalap taken with an equal quantity of opium in four pills, has caused several stools and the usual effects of the latter.

I have often repeated this, and generally perceived more purging than I should have supposed from so small a quantity of jalap, and in such a combination.

The evacuation of the stomach by irritating the orifice

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of the pharynx with a finger, the moment when the effects made their appearance, or before, has cut short the effects of any dose. Beyond an hour after the effects had made their appearance, I have found vomiting excited in the same manner, not alone useless, even if the stomach was quite emptied, so that nothing but bile was brought up, but even aggravating confusion, giddiness, stupor, and particularly retching to a high degree.

Vegetable acids, especially lemon juice, if used in sufficient quantity and for a sufficient length of time, before the opium has been carried into the circulation and produced strong effects on the head, resist its operations in a great measure, but do not quite counteract them. I have taken the juice of a lemon diluted with half a tumbler of water, at the same time with eight grains of opium; I have repeated the draught five times in three or four hours, then discontinued it, and in an hour after I have experienced all the usual effects of opium. I have taken at another time the same dose of opium with the same quantity of lemon juice, repeated the latter at first every half, and afterwards every three quarters of an hour, for five or six hours, and the effects of the opium was inconsiderable in proportion to what it used to be.

About two ounces of vinegar used as the former, has done me much the same service. Vegetable acids, like vomiting, are useless and hurtful, if confusion, giddiness, sickness, &c. have lasted some time. Immediate vomiting and violent retchings are the infallible consequences without affording any relief. Mineral acids possess no property at all in counteracting or removing the effects of opium,

A tumbler full of warm milk, drank directly after it came from the cow, took the gripings away instantaneously, as often as I used it for that purpose.

To a medical friend of mine, who wished to take a dose of opium for the sake of observation, I gave three pills, containing together three and a half grains of opium and three grains of jalap. An hour after (about seven o'clock in the evening) he got sick and giddy, having drank tea shortly before.

In about another hour the said effects had increased to such a degree, that he was obliged to go to bed. He was not much disturbed in the night, and got up tolerably well next morning. He made a hearty breakfast, consisting of coffee and toast; but got giddy, sick, and vomited soon after. He was again obliged to lie down, and remained in bed the whole day. I administered to him, from time to time, the juice of a lemon diluted with half a tumbler full

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full of cold water; but he soon perceived, that far from relieving him, this caused an increase of sickness and vomiting, and violent retchings. As often as he made water, he experienced the abovementioned difficulties, and he experienced also some griping.

Directly after he had taken tea in the evening, not having been able to make any dinner, he vomited, and perceived renewed gripings. He got up seemingly well next morning, after having enjoyed a good night's rest, but found himself unwell, giddy, and rather sick for some time after breakfast; which, as the day before, consisted of coffee and toast. He perfectly recovered during this, and continued in good spirits till the fifth day, when he began to feel himself very tired and despondent.

On the following day he was so sleepy, that every effort to read was in vain; and it was not till some days after that he enjoyed his usual alertness again.

Another medical gentleman took early in the morning, before breakfast, a pill of one grain. Not perceiving any effect, he took another grain an hour and a quarter after. Having waited again an hour and a half, without feeling the least effect, he took two pills of a grain each, which caused in less than an hour some giddiness; directly after head-ach, red and swelled eyes, strong inclination to sleep, and dryness in the mouth and fauces. After some time, he perceived violent gripings, which became easy directly after he had drank a tumbler full of warm milk as it came from the cow. About an hour after the gripings returned, and warm milk, used as before, afforded him the same relief. Five hours from the time that he had taken the last dose, he drank two dishes of tea, to which he ate some toast, which soon caused violent giddiness, sickness, and vomiting. Having lain down for an hour, he walked out, got warm, perspired, and came home perfectly well. He was costive this and the next day. After some time, he took again two grains very early in the morning, which produced no effect. Two hours after he repeated the same dose; from which he perceived nearly the same effects as before; only that he was near a quarter of an hour before he could make water, which was about five or six hours after he took the last dose.

Both gentlemen are between five and twenty and thirty years of age, of a common habit; that is to say, neither plethoric and very strong, nor weak and irritable. As for myself, I am of about the same age, and rather of that disposition which is pretty generally known in this country by the expression nervous.

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A young lady, lively, healthy, and strong, who was anxious to know what effect those pills could have, which I constantly carried about me, and which I took at all times, she could not conceive for what purpose, desired me to let her take some. Afraid of causing disagreeable and violent effects, I only gave her now and then, and at different times, and under different circumstances, one grain; of which, neither she, who waited with female curiosity, nor myself, could perceive any effect. One morning, in compliance with her ardent entreaties, I gave her two grains at breakfast, at seven o'clock. I did not see her again till evening, when she told me that she had been very sick *indeed*; very giddy and drowsy the whole day; but thought she was then quite well.

To eight men, in a general state of health, between five and twenty and fifty years of age, most of them attendants and the others patients in the Foreign Hospital, with local disorders, perfectly free from pain and fever, I administered to each four grains of opium, dissolved in a sufficient quantity of brandy, diluted with water, shortly before dinner.

In two hours after, two complained of gripings, giddiness, head-ach, drowsiness, thirst, and sickness; which lasted the whole remaining part of the day.

A third experienced gripings, and dryness in the mouth and fauces. Three others were slightly confused, giddy, and dry for some hours, and the remaining two perceived no effect at all.

Some of the former had more or less disturbed sleep, difficulties in making water, and costiveness. The others were well in the evening, and had a good night.

Sometime after I administered to three men, of the beforementioned age and healthy economy, a pill of three grains each, three hours and a half after dinner. In little less than an hour, two experienced a slight confusion of thought, slight giddiness, and grumbling motions in the bowels. In about half and hour more, the one perceived gripings, which, together with thirst and disturbed sleep, continued the whole night. I ordered him a quart of milk, several hours after the gripings had made their appearance, which he drank gradually without any benefit. The other had no gripings, but a grumbling in the bowels, giddiness, head-ach, thirst, costiveness, and slight difficulties in making water, which he experienced great part of the night, and a part of the next day.

The third experienced, very late, slight giddiness and thirst, and his sleep was rather disturbed.

[To be continued.]

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Observations on the Petechiæ sine Febre; by Mr. A. Edlin, of Uxbridge.

THIS disease has not been noticed by Physicians till within these few years past, and a particular description of it has not yet been received into any of the works of systematic writers. Such accounts as have been published, were either suggested in the form of notes, or detailed in books, which do not usually fall into the hands of young practitioners.

The first person who noticed and described it was Dr. Graff of Gottingen; and as the absence of fever is a most striking peculiarity in this disease, he gave it the name it now bears. An account of a similar disorder is recorded in the Transactions of the Medical Society of Copenhagen; and Dr. Tattersall, in the tenth volume of his Medical Commentaries, has described four cases of this complaint, which all terminated in death; but the most accurate and comprehensive account I have seen of the petechiæ sine febre, is given by Dr. Ferris,* in the first volume of the Medical Facts and Observations, and the plan he recommends for the mode of treatment is not only the most judicious that can be devised, but if properly followed up, appears the most likely to remove a disease which, if left to Nature, will most commonly prove fatal.

It usually begins with a sense of lassitude and disinclination to active exertion, but the appetite, notwithstanding, continues good, the pulse natural; neither is any pain, fever, or disturbance in the constitution excited. In general, the first untoward symptom is a few bright red spots on the feet and legs, which are scarcely noticed. As the disease advances, they increase in number, put on a purple appearance, and sometimes spread over the whole surface of the body, in which state they have been known to remain for days or even weeks, the patient pursuing his ordinary occupations, insensible of his danger. The eruption now becomes of a livid hue, and sometimes a number of these spots run into one another, and occasion on the lower extremities a dark coloured appearance similar to a bruise; this shall remain in an indolent state for some time, when a thin bloody serum is discharged; on the skin being removed, an ill conditioned sore is observed underneath, which soon becomes exquisitely painful, spreads unequally, and assumes every appearance of a phagedenic ulcer, which seldom heals till the breaches in the constitution are repaired.

repaired. At other times the throat is particularly affected, the tonsils swelling considerably, and assuming a livid aspect; and if the tumefaction does not speedily subside, the cutaneous vessels rupture, and an ill conditioned ulcer appears upon the surface, which occasions the breath to be excessively offensive; or if ulceration does not ensue, an hæmorrhage not unfrequently takes place from these parts. Faintness and languor now succeed, which are followed by loss of appetite and great prostation of strength. An hæmorrhage from the nose now usually follows, which excites a considerable degree of alarm from the difficulty of restraining it. Again and again it takes place, most frequently in the sleep, and is restrained when the patient is in an erect posture; the hæmorrhage continuing, the debility increases, the spots assume a dusky brown colour, bordering upon black, the extremities become cold, and death in a short space of time closes the scene. Such is the usual progress of this disease when left to Nature; but when the complaint takes a favourable turn, the petechial spots diminish in size and number, the bruised appearances upon the legs gradually disappear, or if they have ulcerated begin to heal; the throat no longer continues sore or swelled, the symptoms of debility decline, and that peculiar languor, which characterises diseases of debility, no longer manifests itself.

The petechiæ sine febre very frequently * occurs among the wretched poor in large towns, particularly in London; and the persons most liable to its attacks, have been either previously debilitated by disease, or lived in confined situations, upon a sparing unwholesome diet, by which means their blood is brought into such a thin dissolved state, that it stagnates † in the cellular membrane, and produces petechiæ from a torpor or paralysis of the absorbent mouths of the veins. Such being the case, it must be the business of the physician to prescribe such remedies as will tend to support the patient's strength, and restore to a healthy state the absorbent system. In general it is the most advisable to begin with a gentle emetic, and afterwards to evacuate the contents of the bowels with a lenient cathartic; then the bark, both in decoction and powder, joined with muriatic acid, must be given in as large a quantity as the stomach will bear. If it should occasion a diarrhœa, a few drops

* Critical Review. N. A. Vol. 17. p. 260.
† Darwin's Zoonomia, Vol. 2. Cl. 1. 2. 1. 5.

drops of the tinct. opii. should be added to each dose, according to the age and constitution of the patient; and where the symptoms of debility are very great, moderate doses of opium will be found particularly serviceable. The diet should be nourishing and of easy digestion, and malt liquors, port wine, artificial Seltzer water, oranges, and other ascescent fruits may be taken almost ad libitum. When the throat is affected, the best gargle is a strong decoction of roses acidulated with the muriatic acid, and the sores should be dressed with straps of adhesive plaster renewed every second day, as they tend to check the discharge, and promote cicatrization. By a perseverance in these remedies, the patient's strength and spirits will be found to improve daily, and in a few weeks, with the assistance of fresh air, exercise, and cheerful society, the complaint will be entirely subdued. The following cases will serve to illustrate the foregoing observations; and the last one in particular, exhibits a melancholy proof of the fatal effects of this disease when left to the efforts of Nature alone.

CASE I. Miss. H. H. aged 15, of a thin delicate habit of body, perceived about the 10th of last August several small spot upon her ancle, which she did not take particular notice of, supposing them to be flea bites; but as they increased both in size and number every day until the 15th, I was requested to examine them, and observed that the whole of her legs, from the ancle to the knee, were covered with petechial spots, some of them red, others purple, and a few had a brownish tinge; her general health was tolerably good, appetite unimpaired, tongue moist and clean, and except this appearance she had no marks of disease. An emetic was exhibited in the first instance, and afterwards a gentle laxative. The next day she took a strong decoction of bark joined with the muriatic acid, and I recommended her to take a glass of port wine twice a day. She pursued this plan for a week or ten days, when the spots disappeared and she regained her usual serenity.

On the 14th of September following, I was desired to visit her again, the spots having made their appearance a second time in greater numbers, and one upon her ancle of the size of a shilling had ulcerated, and now discharged a thick dark coloured ichor, which corroded the neighbouring skin; the edges were very ragged, and had the appearance of an ill conditioned ulcer; her legs swelled considerably

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siderably towards night; her countenance was pale and languid, and she complained of a soreness in the throat. On inspecting the fauces, I observed that the tonsils were much swelled, and had a dark coloured appearance, as if they were distended with coagulated blood, and upon the surface of the left one was a small ulcer similar to that on the ancle; the pulse was natural, her appetite not so good as it had been, and she complained of a soreness when she swallowed her food. The tongue was by no means foul, and the heat of the skin perfectly temperate. The bark and a nourishing diet were again had recourse to; the throat was directed to be gargled with infusion of roses, and the sore was dressed with the ung. cer. and a roller applied over it. This plan was pursued till the 20th, when I was sorry to observe that the eruption had extended to the upper extremities; and the sore still continuing to spread, was this day dressed with straps of adhesive plaster, and ʒj. of the pulv. cinchon. was added to each draught. 21st. Her general health is much improved, the spots diminish in size and number, the wound is now healing rapidly; and in the course of a few days more, I had the satisfaction to see her restored to health.

Case II. I was sent for on the 23d of August, 1800, to visit J. W. æt. 33, who was covered from head to foot with petechial spots; those on the neck, arms, and breast, were of a bright red, and those on the legs and feet of a purple colour; he had no fever, pain, or head ache, but was so extremely debilitated as to be almost incapable of rising up in his bed; he had a weak fluttering pulse, and his stomach was so irritable as to be incapable of taking or retaining any solid food. On enquiry, I found that these spots had been out upon him more or less for some time, and as he supposed they arose for want of physic, he took three ounces of Glauber salts, which reduced his strength in a few days surprizingly. I gave him a draught with the decoct. cinchon. and conf. aromat. every four hours, and allowed him a pint of port wine in the day, with panada, sago, and such light nourishment as his stomach would bear. By a perseverance in this plan, the spots in the course of a fortnight disappeared, but several weeks elapsed before he regained his health and strength.

Case III. T. E. a farmer's boy, æt. 14, was observed for some weeks to go about his work with unusual lassitude; his countenance was pale and languid, and he often bled at

at the nose; but as his appetite was good, and he slept as usual, no particular notice was taken of him; however, on the morning of the 14th of April, 1801, he was sent from home with a message, and as he was walking along, his nose began to bleed very profusely, and continued so without intermission till he returned home again; but as an hæmorrhage from the nose is a very common occurrence in young people, little attention was paid to it till he became faint from the loss of blood. He was then put to bed, and while his friends were undressing him, his body was observed to be covered with petechial spots. On being interrogated as to their duration, he replied, that they had been so for several weeks. A friend of mine was then sent for, who saw him in the evening, but the patient was now convulsed, and in the course of a few hours expired. In this case the patient was evidently lost from neglect; had proper medical assistance been called to him when the petechial spots first made their appearance, in all probability the lad's death might have been prevented.

To the Editors of the Medical and Physical Journal.

Gentlemen,

I AM obliged to defer my Remarks on the enclosed Case of Cancer to your next number but one; and probably what I have now sent will occupy as much room as you can conveniently spare in your next.

The objections that have been made to Cullen's definitions of the terms stimulants and sedatives, and no one having thought it worth while to amend them, or to propose others in their stead, or to give their opinion of those proposed by me, (see No. 50, p. 348) have prevented my going on with the subject. I should be sorry for so interesting a topic to be left undecided. Should your Correspondents continue silent, I shall be under the necessity either of proceeding in my own way, or of withdrawing the request I made in your 50th number, p. 335.

I am, &c.

Manchester, October 12, 1803. M. WARD.

An extraordinary Case of Cancer of the Breast which has lately been under my care, gave rise to the following observations.

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THE CASE.

Eliz. Houchard, æt. 58, formerly of a robust healthy constitution, was admitted into the Infirmary, July 12, 1802, with a cancer of the right breast of a year's standing.

The tumour was large, moveable, painful, and slightly ulcerated in the centre: one of the axillary glands was also enlarged, hard, and uneasy.

The breast was in such a state as to admit of extirpation, and had the disease extended no farther, I should not have hesitated to have recommended the operation: it was however a proper case for consultation, the result of which was, an operation, provided the patient should be desirous of having it performed, after the arguments both for and against it had been laid before her.

Being informed it was doubtful what the event of an operation might be, but that it afforded the only chance of a cure, she requested it might be done, which was only prevented from taking place immediately by the continuance of thirst, pain in the loins, and other symptoms of fever, with which she was attacked soon after her admission; and by the time these were subdued, the disease had extended too far to admit of it.

Her spirits now failed, the pain increased, and extended to the arm: in a short time the breast adhered to the pectoral muscles, and began to put on a livid aspect; the superincumbent skin either ulcerated or excoriated, the discharge thin, copious, and extremely offensive.

These changes were soon followed by great debility *and other symptoms of typhus*; and when these had continued some time, she became so delirious and noisy as to make it necessary to remove her into the fever ward. This was about the middle of October,

For several weeks the breast had been growing more and more livid in its appearance, till at length it became completely gangrenous, and by degrees came away, leaving an ulcer of a healthy appearance about as large as a common sized tea saucer.

From that time a great and sudden amendment of all the symptoms was experienced; the fever and pain left her: from a state of the most extreme debility, she recovered her appetite, strength, and spirits surprizingly, and in less than a month returned to the cancer ward in the Infirmary.

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(Improbable as such an event was, she now began to flatter herself with the hope of getting well, which she retained; so entirely did she feel herself relieved in the part originally affected, till within a few days of her death.)

The change in her complexion was very remarkable; and was noticed with surprize by others as well as myself both at that time and in the subsequent part of her illness. The "pale leaden tinge," with which it had been affected, vanished, and her countenance became clear and healthy; the sore looked well; the discharge, from being extremely copious and intolerably offensive, became moderate in quantity, and nearly free from smell; the healing process went on so rapidly, that the ulcer, which after the separation of the mortified parts was at least six inches in diameter, was reduced in about a month to one third of that size; it then remained stationary till the middle of December, when it began to put on a more unfavourable appearance: the newly formed skin began to grow uneven and callous, some parts being rather more prominent than others, and yielding a serous or lymph-like discharge: the axillary gland, which had been easy some time, again became painful, as did also the shoulder and upper part of the arm of the affected side, which on examination were found to be rather swelled; yet her general health did not decline so rapidly as might have been expected.

At length, the whole arm became so much swelled as to render it necessary for her to be almost constantly in a horizontal posture; and independent of the loss of appetite and strength which the want of exercise occasioned, she suffered more pain and inconvenience from this, (reckoning from the time of its attack) than from all her other ailments put together.*

Under all these disadvantages, (to which must be added the increasing discharge from the ulcer on her chest, and a difficulty of breath, with which she was at times affected, from a sense of stricture in the right hypochondrium, during the last two months of her life) she continued till the 2d of May, 1803, having experienced, upon the whole, during the last six months of her confinement, a much greater

* *The progress of the swelling was from above downwards, and the limb was œdematous between the wrist and elbow, but not above. The swelling extended to the scapula*

greater degree of health and spirits as well as freedom from pain, than is usual in the last stage of this deplorable malady.

TREATMENT.

How far the method of treatment adopted, assisted in producing the gangrene and consequent separation of the breast is uncertain; but, doubtless, that event happening was the means of prolonging the patient's life, and to it likewise must be attributed the comparative ease which she afterwards enjoyed.

The operation was relinquished towards the end of August, and I have already described the state of the diseased parts, and of the patient's general health at that time, which were such as to render it highly improbable she could continue long. I then thought it a fair case for experiment; and though it was evidently an incurable one, it was not the less necessary, if any useful inference were to be drawn from the plan pursued, that the treatment should be conformable to rational indications of cure. With this view it appeared requisite, 1st. That the diseased parts should be separated from the sound; (it being impossible to retore their natural actions). 2dly, That the powers of life should be supported.

In pursuing these indications, my first object was, to guard against the necessity of giving frequent and large doses of opium, which would have weakened those powers (namely, the natural, vital, and animal functions), and consequently have retarded instead of promoting what was intended; she was therefore confined to an anodyne at night, (consisting of a grain or a grain and a half of opium) unless when the pain was more severe than common, when the dose was allowed to be repeated once or twice a day; and the object was so far accomplished, that at no time, except in the last week of her confinement, did she take more than four grains and a half in twenty-four hours; in general not more than half that quantity, frequently not more than a fourth; and it relieved her pain, whether situated in the breast, the axilla, or the arm, (when refreshing sleep usually followed) so effectually, and seemed so harmless in other respects, (castor oil or rhubarb being given occasionally, and wine in moderate quanties, either in gruel or negus, ...etimes alone, to counteract its sedative properties) that ...d no inducement for trying the anodyne effects of the ...scyamus as a substitute for the opium, as I intended.

With similar views, either diluted nitrous acid, an infusion of chamomile with cinnamon water; compound infusion of gentian; an infusion, or some other preparation of bark, with cinnamon, steel, extract of gentian, &c. was administered throughout, as circumstances indicated. Exercise was also enjoined as far as it could be borne, and the warm bath once or twice a week; but the fears of the patient prevented her from using the latter.

To the parts affected, such applications were made use of as I judged likely to ease pain, such as the ol. camph. applied three times a day for half an hour at a time to the breast, shoulder, and arm pit, and as far round each of them as the pain extended; and ung. cerus. acet. spread on linen as often to the breast, for the purpose of weakening, by its sedative power on the different systems of vessels, the vital principle in that part, and thereby of forwarding the process of separation; for I was afraid of applying caustics to such an extent as would have been required for that purpose.

This was the beginning of September, and about the middle of that month the pain was more severe in the surrounding integuments than in the breast itself, and continued so, at times, as long as she lived. And this was relieved in some degree, for a time, by the tinct. nicot. applied as an embrocation; but it soon lost its power.

As soon as a disposition to gangrene became evident, the bark in substance was given, at short intervals, and was continued in this form as long as any of the mortified parts remained, and some time longer; the quantity of wine was increased to a pint and a half, or two pints in twenty-four hours; an anodyne fomentation, and an ointmen[t] consisting of opium, camphire and hog's lard, in differen[t] proportions, were applied three times a day. Barley wate[r] acidulated, was ordered for common drink, to which win[e] was sometimes added, and a grain and a half of opiu[m] two or three times in the twenty-four hours. In short, th[e] constitutional treatment during this time was the same as [if] the mortification had arisen from any other cause.

When it was stopped, a decoction of oak bark with camphorated spirits of wine was ordered as a lotion, and powdered bark to be sprinkled *plentifully* upon the sphacelated parts, two or three times a day, till the whole of the offending matter had been either cut or thrown off. ...on

The parts in the circumference were soonest cl... h... and there prepared chalk was applied, instead of the ...o... till the whole surface looked clean; after which the

went on in filling up and contracting rapidly in all directions, as has been described.

To promote this end, various applications were made use of; the chief of which were, a strong decoction or infusion of oak bark,* at first with, afterwards without camphorated spirit of wine;† adhesive plasters, chalk or calamine prepared, cerate of prepared calamine, powdered bark, rhubarb, &c. &c.

When the cicatrix began to ulcerate, powdered savine was applied to the prominent parts, but without effect; pure kali was then applied in its stead, but as it operated merely as a stimulant, without destroying the life of the part, it was discontinued; and from this time the only dressings made use of were, the oak bark lotion, powdered bark, rhubarb, or calamine.‡

About the same time the enlarged axillary gland, which had been quiet so long, again became painful, and contained a small quantity of matter deep seated; and finding it every day grow larger, more painful, and the discolouration of the skin more intense, I ventured to apply pure kali, so as to produce a small eschar; the pain immediately ceased, the swelling and redness subsided; a poultice was then applied till the slough came away, leaving a deep cavity which discharged a curdy matter in small quantity for some time, after which it filled up, skinned over, and continued easy three or four weeks, and then gradually returned to its former state.

Emboldened by the success of the first experiment, I applied a caustic somewhat larger than before, with the same favourable result, and had occasion to repeat it three or four times, and always with advantage. The eschar was never larger than a shilling.

The disease being by these means interrupted in its progress in the breast and axilla, seemed to fall with more violence

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* A decoction was first used, made by boiling two ounces of oak bark in three pints of water to two pints; and afterwards an infusion, made by infusing four ounces of the former four hours in three pints of boiling water. Towards the last it was made stronger still, viz. four ounces to two pints.

† As long as the camphorated spirit formed a part of the lotion, the sore was flabby and bled frequently; and from the time the infusion of oak bark was used alone, no hæmorrhage occurred, except the part was rubbed or bruised, and it was then very slight and soon ceased.

‡ Perhaps it is unnecessary to mention that warm water was used every morning to the ulcerated parts, and soap occasionally, and that a flannel roller was regularly applied to the arm, from the time it began to swell.

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violence upon the lymphatics of the arm, producing the swelling and other effects mentioned above; to alleviate which the following means were made use of: 1st. the vapour bath applied daily; 2d. artificial sea water, with two or three times the usual quantity of salts; 3d. mercurial friction; 4th. dry friction with the hand and flesh brush; 5th. adhesive plasters applied tight from the hand to the shoulder. All these except the 3d, were of use, especially the dry friction and adhesive plasters, which afforded great relief, and continued to do so to the last.

[To be continued.]

Report of Diseases in the Parish Workhouse of Sunderland, from the 15th of August to the 15th of September, under the Care of the attendant Surgeon.

ACUTE DISEASES.		Prolapsus vaginæ	1
Aphonia	2	Pruritus	1
Angina tonsillaris	1	Psora	3
Erysipelas	1	Sciatica	2
Febris intermittens	1	Syphilis	2
Typhus	5	CHIRURGICAL DISEASES.	
CHRONIC DISEASES.		Abscess axillæ	1
Adephagia	1	——— Ischii	1
Adynamia	1	Adustum	2
Amaurosis	3	Dislocatio femoris	1
Amentia congenita	1	Fistula lachrymalis	1
——— acquisita	1	Fractura Radii	1
Asthma	3	——— Femoris	1
Dysecœa	3	Hernia	3
Dyspepsia	3	Hydrocele	1
Elephantiasis	1	Ulcera Cruris	5
Epilepsy	1	——— Linguæ	1
Furfuratio	1	INFANTILE DISEASES.	
Herpes	2	Atrophia	2
Hepatitis	1	Dentition	3
Hydrothorax	1	Spinæ incurvatio	1
Hypochondriasis	3	Schrophula	2
Icterus	1	Vermes	5
Ophthalmia	2		
Paralysis	2		83
Phthisis	3		

In a parish work-house, where a considerable number of persons are maintained, a variety of diseases must naturally exist. In this, there have sometimes been near 300 persons,

persons. When the epidemic catarrh prevailed, out of 280 that were then in the house, not more than forty-two were attacked, none of whom died; in three it terminated in *phthisis*; not many were affected with *typhus*, and such as were, recovered very fast. Several children were in the months of June, July, and August, seized with the measles and scarlatina; in these, however, the symptoms were so mild as to require but little medicine. Four or five cases of typhus have occurred within the period we have named, three are already recovered, and the rest approaching to a state of convalescence; this last disease did not appear to be contagious, nor have any of its symptoms proved alarming; they gave way to the usual treatment, with the assistance of the decoct. cort. salicis latif. which on the remission of the febrile symptoms produced a speedy recovery.

The number at present in the house is something more than 200; and although far above one-third, as appears by this list, are more or less in a state of disease, yet when we reflect that work-houses are the usual asylums for the infant race, the aged and infirm, and that few in the middle period of life, of the male sex in particular (unless labouring under disease) are inhabitants of such receptacles, it will appear in the present instance, that this house cannot be properly deemed unhealthy. Of the acute diseases not more than thirteen occur, even including dentition. More than half of the chronic may be considered as incurable, as they are attached to the aged and infirm, while the remainder may be deemed the result of certain primary affections thus degenerated. Of the chirurgical diseases, eighteen in number, five of which are accidental, nearly the whole may be considered as capable of being cured, if we except herniæ. The infantile complaints are very few, compared to the number of children contained in the house. Among the best means of preserving health, and checking contagion, may be considered those of having the fewest persons in one room and one bed, using cleanliness, white-washing the walls with lime, and free ventilation.

The two first I have not been able to enforce, although that of cleanliness and white-washing are not altogether neglected; from the nature of the building and its situation admitting of a free ventilation, I am of opinion, we are to ascribe its being not so much affected with contagious diseases as might be expected.

Sunderland, Sept. 25,
1883.

G. WILKINSON.

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Account of Diseases in an Eastern District of London, from September 20, to October 20, 1803.

ACUTE DISEASES.	
Typhus	10
Cholera	14
Dysenteria	9
Pneumonia	2
Angina	2
Variola	1
CHRONIC DISEASES.	
Tussis	15
Dyspnœa	9
Tussis cum Dyspnœa	9
Hæmoptysis	2
Hepatitis Chronica	1
Enterodynia	7
Diarrhœa	15
Hæmorrhois	3
Gastrodynia	8
Anasarca	4
Amenorrhœa	9
Leucorrhœa	11
Menorrhagia	4
Dyspepsia	10
Rheumatismus Chronicus	12
PUERPERAL DISEASES.	
Enteritis	4
Ephemera	7
Menorrhagia Lochialis	5
Mastodynia	6
INFANTILE DISEASES.	
Aphthæ	4
Convulsio	2
Vermes	4
Diarrhœa	7

The present state of disease is very similar to that which was taken notice of in our last Report. As we advance farther into the autumnal season, we may expect that the number of instances of those complaints which are peculiar to that period will increase. Intestinal affections prevail to a considerable degree. Diarrhœa still occurs very frequently, and connects itself very much with other complaints. Cholera and Dysenteria are now beginning to form a large proportion of the catalogue of diseases. Of those referred to in the preceding list, not any one terminated fatally.

Fevers of the typhus kind are becoming very frequent, and the symptoms attending them have, in several instances, been severe and threatening. In one case, which terminated fatally, the internal fauces exhibited a very dark appearance, which spread also over the lips and the lower part of the nose. A florid eruption on the nose or lips, attended with soreness, or small fissures at the tip or on the side of the tongue, sometimes appear in fevers of this kind, and are followed by a remission of symptoms; but, in the instance referred to, a dark coloured and gangrenous appearance of the sore about the nose, lips, and chin, conspired with other symptoms to form an unfavourable prognosis, and in a few days the patient died.

CRITICAL ANALYSIS

OF THE

RECENT PUBLICATIONS

ON THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

Facts and Observations concerning the Prevention and Cure of Scarlet Fever, with some Remarks on the Origin of Acute Contagions in general. By W. BLACKBURNE, M. D. Octavo, pp. 170. London, 1803.

THE principal object of this philanthropic writer, as far as relates to the scarlet fever, is to teach and recommend the means of preventing its spreading in schools and families.

"I conceive it, says he, to be my duty to communicate what information I have acquired, particularly with regard to the means of checking its progress; and, to enforce the necessity of attempting its total extinction, of which, as a specific contagion, it is completely capable. From these motives, the following result of my experience is made public.

"But it appears also, that the method of curing scarlet fever is not so consistent, or perfectly established, as the nature of *such* a disorder demands. So weighty and numerous are the exceptions to the general laws and precepts of medicine, when applied to individual cases, and so pernicious has been the indiscriminate adoption of precise rules in particular morbid affections, that the utmost caution is required in delivering them. Under this impression, a *General Outline only of the Treatment of Scarlet Fever* is here presented, ready to be filled up with deeper or lighter shades, according to the more acute perception and superior judgment of future observers.

"The history of its symptoms has been so faithfully executed by Dr. Withering, in his Treatise on Scarlet Fever; and by the late venerable Dr. Heberden, in his Commentaries, that it would be superfluous to detail them here.

Dr. Blackburne commences his work with a few general instructions and observations respecting the steps which should always be taken on the first appearance of this or any similar contagious disease in a public seminary or private family. As these rules appear to us judicious and important, we shall present our Readers with an abstract from them.

"As symptoms of indisposition do not immediately result from infection in a general way, no examination takes place with respect to the number of those who have been tainted when scarlet fever shows

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shows itself in a seminary; but as soon as the disease appears in one or more of the children, all are immediately dispersed. Those in whom the infection is latent, and to be afterwards produced, convey it to their respective families, where it seizes a less or a greater number of the individuals composing each family, particularly children and servants. By means of the latter, it is chiefly propagated through the circle of their acquaintance, and introduced into other families, and the disease is thus diffused through society without check or reserve. When the alarm is given in a numerous private family, a similar course is too often pursued: the members of it are usually sent away, inconsiderately, among their friends and acquaintance, and often to school, before it can be discovered whether the seeds of disease are not already sown in some of the fugitives. Several may even be infected from the same origin, in each of whom the disorder may appear at different intervals of time. But a very frequent and almost unsuspected source of infection, arises from the return of convalescents resuming the ordinary intercourse with the members of their family, *before* they have *ceased* to *disseminate contagion.* The precise time, in which the breath of a person who has passed through an infectious disease becomes incapable of conveying contagion, is by no means determined. The public are not sufficiently on their guard, with respect to this important fact. If the disease do not actually appear on the infected, they are apt to conclude, that a person in apparent good health cannot communicate disease. A very different conclusion will be drawn from the accounts I am about to recite in the sequel. And I feel it my duty most earnestly to recommend the utmost precaution and vigilance on these momentous points, universally, to the conductors of education and the heads of families.

“ All masters and mistresses of boarding seminaries ought, for their own sake, to be provided with one or more separate apartments, in proportion to the size of their establishment, for the reception of invalids. These ought to be so contrived, that the communication between the sick rooms and the rest of the house may be easily, completely, and speedily cut off at any time. If the establishment be too contracted to admit of such appendages under the same roof, a lodging should always be kept in view in the neighbourhood; the owner of which, being instructed in the methods of preventing the spread of contagion, and suitably rewarded, might have apartments in readiness whenever occasion demanded. There are few institutions, however humble, which may not practise this simple mode of prevention; and none ought to be suffered, which do not fairly and fully comply with it. These regulations become daily more momentous, in the vicinity of London especially, as the great increase of the population, and the extension of its buildings, render public seminaries beyond the precincts of its impure atmosphere absolutely essential to the preservation of the rising generation.

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"When scarlet fever manifests itself in one subject, the first precaution is to separate that subject from the rest without delay. The next very essential one is, to subdue unnecessary alarm and excessive fear; for as this disease is not communicable till the second or third day after its admission into any constitution, and previous or present fever almost always exists when it is admitted; and if it be made a general rule in all schools, to separate febrile patients of every description, according to Dr. Haygarth's recommendation; there will be time sufficient to apprise the childrens' friends of the accident, and to adopt that plan which shall most surely and most certainly extinguish the infection in the seminary, and also most effectually prevent its diffusion among society at large. In the performance of this great and indispensable duty, the parent and guardian must co-operate fully with the instructor; the interests, as well as the satisfaction of both, are deeply implicated in its due execution, and both will be amply rewarded for their mutual and best exertions by the most beneficial result.

"Where the scholars are numerous, and the extent and disposition of the premises admit of it, the best plan, both for parents, teachers, and the public, is *not* to disperse the school. Having ascertained and cut off the source of infection; having separated the originally tainted, as soon as they begin to sicken, and while they yet remain incapable of imparting disease; having disposed of them in proper apartments, and strictly enforced the rules of prevention; the evil may be crushed in its infancy. The extent and magnitude of the mischief will thus be accurately measured, and totally obviated. But if the accommodations of the establishment be too limited for the complete execution of this scheme, or parents be unwilling to commit their offspring to any other than their own inspection in the time of illness, it is a sacred duty imposed on them, not to admit even a suspected child, much less a diseased one, into family intercourse with themselves, their other children, or their servants. A separate apartment, with suitable furniture, where circumstances allow of such conveniences, ought to be always in readiness, or in a state to be made ready, on the shortest notice, for accidental sickness. Here a strict quarantine ought to be performed, whether the subject be suspecsed or convalescent, the period of which may be regulated, partly by what is already known on the subject, and finally determined by future observation and the result of aggregated facts, which hitherto have not been sought after with that zeal and diligence which their great importance demands. If the child be really infected, immediate separation, with the regimen essentially requisite to insure prevention, ought to be practised with the utmost strictness and precision. The rules of prevention being of difficult execution in large private families having numerous attendants, and the multiplication of the chances of spreading infection by removing young persons from school to their own home, are strong reasons why they should remain at school. One great mean of propagating contagion by these

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these removals is the custom of conveying infected persons in public vehicles, stage coaches, &c. This error, though committed daily, proceeds more from inattention and ignorance than any other motive; but when the impropriety and mischief of such a practice, and its highly pernicious consequences, are universally known and published, every individual ought conscientiously to abstain from these modes of imparting disease; and this resolution being once undeviatingly acted upon, public confidence would be fully established, all excessive alarms on the score of infection might safely subside, and even reasonable precaution might become less troublesome, and eventually be rendered unnecessary."

After Dr. B. has given a series of facts to serve as a foundation for his inferences, and made a number of valuable observations on the medical treatment of *Scarlatina Anginosa*, he proceeds "to inquire, by what variety of modes the infection of scarlatina may be introduced into the human body."

These he reduces to three, viz. 1st. Simple contact alone; 2d. Inoculation; 3d. Inhalation.

The first he thinks is very doubtful, and adduces sufficient arguments to establish the opinion. He even goes so far as to infer "that a degree of contact, which medical attention to, and nursing of the sick, renders necessary, is perfectly innocuous."

The second, or inoculation, very certainly communicates the specific disease when properly performed.

The third is that to which the Author appears desirous of calling the attention of the Profession in particular, and on which he founds his peculiar opinions respecting the origin of acute contagious diseases.

"Every species of contagion being suppressible by the temporary restriction of personal and intermediate communication, it follows, that the same restrictions are as practicable in all instances as in any single example. It cannot be denied, therefore, that the means of suspending the progress, or of locally annihilating all contagions, are as much in our power as the extinction of one.

"In the execution of a project so comprehensive as that which involves the suppression of every contagion, many obstacles will undoubtedly arise, which may, at first sight, appear insuperable. Similar objections have ever been opposed to every effort to meliorate the condition of man; but they have been most frequently overcome. Their opposition, on the present occasion, will not be more obstinate in an extended than in the limited plan, which is about to be put into execution. Great and numerous as the difficulties appear to be, they may all be included under the ignorance, the self-interest, and the indolence of human creatures. Ignorance on a subject of such high importance need not be suffered to remain long, where the means of information are so readily diffused as at the present æra, and the arm of the law can never be more properly called forth to lend its aid, than where selfishness, indolence, or insensibility to moral inducements are opposed to measures of

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undoubted public utility. No infringement on the genuine liberties of the subject is, on this occasion, proposed. In the instance of quarantine, men are obliged by law, to submit to restraints, which may transiently injure their interests, and interrupt, for a time, their social enjoyments; the more varied and extensive application of these laws is all that is required.

" A more forcible objection, however, and of a different character from the foregoing, remains to be obviated. Every species of infection must have had an origin. The same cause or causes which gave birth to a given contagious disease, in one or more individuals who first experienced it, will operate again under similar circumstances, and reproduce the same disease occasionally, notwithstanding the most successful attempts to extirpate it at any particular time. Allowing this objection its utmost force, the advantages will be infinitely great where prevention is instantly adopted, whenever such examples of original contagion occur, compared with the consequences which ensue, where no precautions are used. In support of this argument, a striking instance of the advanages of voluntary seclusion appears in its securing the health of the merchants of the Levant, in their factories, while the plague is destroying numbers all around them, no measures being taken by the people of the country to prevent its propagation.

" But the argument in favour of universal prevention becomes irrefragable, if the primary and principal sources of contagion can be discovered, and are then capable of being obviated or removed. With this view, a closer inspection into the origin of acute contagions in general may be instituted with advantage, which shall now be cursorily attempted, leaving to more able hands the completion of a research, than which none involves more extensively or more closely the dearest interests of our fellow creatures.

" The origin of contagious diseases has been commonly deemed so obscure, that any attempt to elucidate the subject would appear more curious than useful, more theoretical than practical, could it not be proved, that a more accurate acquaintance with infectious sources would most essentially promote that extensive plan for the extirpation of this class of diseases, which I am so anxious to recommend.

" We shall obtain the clearest view of our subject, by dividing all infectious diseases into the acute and the chronic. The first head alone shall occupy our attention at present, and under it are comprehended the *plague*, or *bubonary* fever; the *variolous*, *morbillous*, *scarlet*, and *yellow* fevers; and the *jail*, *hospital*, *putrid*, *low*, *nervous*, *malignant*, or *typhus* fever.

" In taking this enlarged survey of every description of infectious fever, I shall endeavour to establish the following positions on as solid a foundation as the difficult nature of the inquiry will permit, and apply them as closely as possible to the main point, which is the universal suppression of acute contagions.

" 1*st*. *Certain exhalations, or marsh miasmata, as they are usu-*

ally termed, have the peculiar effect of inducing fever on human bodies, exposed, in certain conditions, to their influence. From their denomination it is too commonly understood, that marshes are the only sources whence these exhalations arise. But they also proceed from moist earth, slime, mire, or mud, in a great variety of situations and climates, of inhabited as well as unfrequented and uncultivated tracts of country, in almost every quarter of the globe. They are more powerful, concentrated, and virulent in hot climates, and in hot seasons, than in temperate ones. And it appears that the types, or periodical evolutions of the fever which they excite, are chiefly governed by the degrees of concentration, which these exhalations possess. The type being more continued, and less intermittent or remittent, in proportion to the power of the exhalation; *animal febrile effluvia, cæteris paribus,* produce fever similar in type, in degree, and violence, to the strongest paludal exhalations.

This first position constitutes the foundation of our author's theory, and therefore he illustrates and confirms it at considerable length; but as we think most of our readers will agree with him, we pass over his proofs.

His second position is, "*The effluvia from febrile animal bodies, and the exhalations from marshes, swamps, and mud, are gases of a peculiar composition, of which hydrogen, or the principle of humidity, forms an essential constituent part.* They do not appear to be the mere result of animal or vegetable putrefaction, although putrescent matter is most generally present, as requisite to their formation.

"Contagious pyrexial gas is not yet proved to be the result of simple deoxygenated human effluvia, unaided by, or uncompounded with, either febrile, or paludous, or limose gas.

"Although the precise composition of pyrexial gases, whether contagious, limose, or paludous, has not been discovered, yet, from a great number of facts, it is evident, that an aqueous constituent is essential to the composition of both. In the citations already extracted, to prove the effect of marsh miasmata, it has been amply demonstrated, that dampness, moisture, or humidity, is always an indispensable ingredient in the exhalations which induce fever. In the following passages the same truth is fully maintained. But another very important truth is also now, I believe, for the first time, brought to light, that, by depriving the pyrexial gases of their aqueous or hydrogenous principle, THEY ARE, FOR THE TIME, ANNIHILATED. THAT, UPON THIS SOLE PRINCIPLE, WE ARE ENABLED TO ACCOUNT FOR THE WELL KNOWN FACT, THAT EXTREME ADDITIONS OR ABSTRACTIONS OF CALORIC OR HEAT, ARREST THE PROGRESS, OR DESTROY THE EXISTENCE OF ALL EPIDEMIC AND CONTAGIOUS DISEASES.

"It will, in the next place, be requisite to adduce the evidence by which these circumstances, equal in magnitude and simplicity, are substantiated."

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For most of this evidence we must refer our readers to the work itself; but the following passages we think too interesting to be omitted.

"There are no facts with which I am acquainted that prove accumulated human effluvia, from healthy bodies, uncompounded with limose or paludous gas, to be capable of generating fever. On the contrary, the following abridged account strongly militates against such an occurrence.

"A number of poor children, male and female, were removed in September, 1782, from Wimbledon to a large house in King-street, Golden-square. They continued in good health till the 8th of October. From this time a number of girls were seized in succession, at different intervals, with sickness, vomiting, sometimes purging, excruciating pain in the region of the stomach and in the back, which was soon followed by violent head-ach, delirium, and convulsions; they were in general costive. The symptoms were relieved by purgatives, but returned again each time with more violence.

'During the remission of the disease, they used to lie quiet 'during an hour, or even two hours, then suddenly to start up as 'before, screaming under the most afflictive torture, &c. They all 'agreed that, the fit approaching, their first sensation of pain was 'in the stomach; which having abated, the head, particularly the 'back part of it, was attacked in like manner; and it appeared, 'that a total perversion of the understanding very soon followed. '*None of them had any degree of fever, &c.* It was observable, that 'their paroxysms were always most severe after sleep. The disease was shown only on certain of the girls, who slept in a particular apartment. It contained ten beds, in which it was intended that eighteen girls, two in a bed, and a female servant 'singly, should sleep; but being a favourite room, on account of 'its warmth, it was generally crowded at night by a much greater 'number than its just complement. That as much space as possible might be made for beds, the chimney had been stopped up 'with bricks, and it had been the custom of the servant at night 'to keep the door shut, and to close the window shutters, that as 'little fresh air as possible might have access. - - - From the time 'of the commencement of the illness, three candles and a lamp of 'oil had been used during the night; but they were hardly of any 'service, giving a glimmering light, and frequently almost extinguished.'

"From the following statement it evidently appears, that the origin and cause of this disease consisted in an accumulation of human effluvia, uncombined with any other morbific gas, particularly pyrexial. For Sir George proceeds:

'It was likewise remarkable, that in a chamber adjoining, of the 'same dimensions, painted at the same time, in which eighteen 'girls slept in nine beds, (which chamber differed from the other 'only in having an open chimney, and not being so closely shut up 'during

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'during the night,) none of the children had a symptom of the 'disease. Another striking fact was, that a female servant, who 'had passed one night only in attendance on the children in the 'chamber of the sick, was on the following morning attacked by 'the same pain, delirium, convulsions, &c.' Medical Transact. Vol. iii. p. 1[illegible]3.

The third portion contains Dr. B's. Theory of the origin of acute contagions, viz.

"3dly. *The greatest number, if not all acute contagions, originate, in the first instance, from the exhalations or gases above specified: but they assume the property of propagating diseases similar to themselves, only under peculiar circumstances, which occasion their conversion from simple into contagious fever. The cause of this conversion is the exposure to accumulated* FEBRILIZED *animal effluvia.*

"The conversion of simple into contagious fevers is a fact established on the most satisfactory and undoubted testimony, part of which I shall now present to my reader. The same facts, which ascertain the above mentioned conversion, also demonstrate the cause to be that which I have just stated.

The evidence in support of this theory, is principally collected from the writings of those who have witnessed the springing up of contagious fevers in hot climates. The following passage will shew Dr. B's manner of applying his theory to the origin of particular diseases.

"That state of the human body, termed febrile, however various in its degrees, seems constantly associated with those contagious diseases which I have termed acute. But two circumstances are essential to formation of fever, a peculiar condition of the body, and its exposure to certain external circumstances, commonly styled remote and occasional causes. It will not be denied, that the condition of the body, at the time when it is attacked with fever, must greatly influence or vary the form of that disease which is about to become contagious, while the febrile actions, themselves, and the remote and proximate causes of those actions, may retain an uniform and identical character. The causes which determine one contagion to assume a pustulary form, as small-pox; another, a bubonary, as the plague; a third, eryspelatous, as scarlet fever, &c. are subjects of important inquiry, which have hitherto been very insufficiently investigated. I shall slightly touch upon them at present, for the sake of illustration, and of exciting discussion, rather than from any ability to form positive conclusions; but more especially, that by attempting to separate what is incidental from what is permanent, in the character of acute contagions, our views of these important diseases may be more clear and correct, their causes rendered less mysterious and obscure, the means of their prevention or their treatment more evident, more readily understood, and of more easy adoption. I shall select the small-pox, as my first example. From Mr. Denon's travels in Egypt, we find, in the following quotation, a very plausible origin

origin of the small-pox, though it is not introduced by him with any view to such an application.

'The heat had become insupportable; the west wind oppressed 'us, caused bleedings of the nose, and painful eruptions, which 'covered, alternately, all parts of the body, dried and hardened 'the skin, and impeded perspiration. The rays of the sun, the 'principal, perhaps the sole cause of these evils, raised on every 'pore a pustule, similar to the small pox, which became intole-'rable, when, in lying down, it was necessary to rest on these 'points.' Denon, vol. II. p. 179. Aikin's translation.

"We have here, in my opinion, says Dr. B. the origin, outline, and external form of small-pox, exactly depicted, before its conversion into a contagious pest.

"A person under this pustular affection, being exposed to the causes which produce infectious fever in him, would become capable of communicating a disease named small-pox, to a second person receiving the effluvia of his body; and a third person being inoculated with matter taken from his pustules in a due state of maturity, would also be infected with the same disease. We see clearly, that the local affection or external form of a new disease may be easily acquired on exposure to new and peculiar external impressions; but it is extremely wonderful, that a new disease should, in the second instance of its existence, as well as in every future example, retain the precise form in which it originally appeared on the person first infected by it; such, however, is the fact. The small-pox has retained its original form, in passing through millions of victims, and under all the varieties of climate where it has appeared. If this origin of the small-pox be entitled to any degree of credibility or likelihood, its pustulary form is proved to be adventitious, while the attendant febrile actions will be found on comparison to bear the typhous stamp and character of other acute contagions, and most probably may claim a remote cause, similar or identical with theirs.

"Pursuing the same tract of investigation, we shall probably discover why the plague assumes a *bubonary* form. The excessive heat of the climate in Egypt, and its propinquity, in many parts, to sandy desarts, and the exposure of its inhabitants, and strangers or travellers, to the hot parching winds, which blow over them at certain seasons of the year, induce a peculiarly dry, irritable state of skin, and impeded perspiration. When perspiration is impeded, increased absorption takes place, and the lymphatic glands become distended and irritable. The cutis, deprived of its moisture, becomes parched, and susceptible of that inflammation which may be styled carbuncular, speedily terminating in mortification. *The intimate connection between the skin and lymphatic glands is well known, by various morbid affections, to exist in every climate.* An Egyptian, or any individual, being exposed to paludal gas, and attacked with fever, in this irritable state of skin and lymphatic glands, or when both are actually diseased, will be said to suffer the plague in his own

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own person; and if subjected to the circumstances which generally render fevers contagious, will communicate a disease of a specific form to a second individual receiving his effluvia."

Hey's Practical Observations on Surgery,

(Concluded from the last Number.)

The fourth chapter of this valuable collection contains the history of several cases of a disease connected with the state of the blood-vessels, to which the author has given the name of Fungus Hæmatodes. The disease is a tumour coming on rather suddenly, generally, though not always, after some slight injury near the part affected, and increasing to an indefinite and often very enormous magnitude. The substance of the tumour is a soft fungus, somewhat resembling the brain in texture, and always affording a profuse hæmorrhage when broken or in any way divided. It appears to be partially organized, and uniformly vascular, but without any contractile power in the channels through which the blood oozes out. The seat is various, mostly contiguous to some muscles of the body, or their aponeurotic expansions; and when upon the breast, its fungous nature, and rapid growth, have often caused it to be mistaken for cancer. Mr. H. has found it always absolutely incurable and fatal except the suffering part be removed by amputation; and even in using this desperate remedy, the utmost care must be taken not to leave any portion of the disease, which would soon reduce the sound stump to the same morbid condition. The appearance which this disease assumes is better described by the author's own words.

" The tumour contained a very large quantity of a substance not much unlike coagulated blood; but more nearly resembling the medullary part of the brain, in its consistence and oily nature. It was of a variegated reddish colour, in some parts approaching to white; and, as blood issued from every part of it when bruised, I judged it to be uniformly organized. This mass was partly diffused through the circumjacent parts in innumerable pouches, to which it adhered; and was partly contained in a large sac of an aponeurotic texture. There was a great and universal effusion of blood from the internal surface of the sac, and from the pouches containing this morbid mass."

One of the cases here described, which terminated fatally, is illustrated by a very striking plate.

Dislocation is the subject of the next chapter; a species of accident, the treatment of which is sometimes attended with much difficulty, and not unfrequently resists the most powerful and the best directed means of reduction.

The following case shews much judgement in the operator, and the great command of strength possessed by one of the old methods of extension.

" September

" September 22d, 1775, a middle-aged man from Aldborough, near Boroughbridge, was admitted a patient of the General Infirmary, on account of a dislocation of the os humeri, at the shoulder, which had happened a month before his admission. The head of the bone lay behind the thick part of the pectoral muscle, and below the coracoid process of the scapula. Some attempts had been made to reduce the bone immediately after the accident, but without success.

" After he had lain in the warm bath about twenty minutes, the following methods were used to effect the reduction: After the arm was properly defended, straps, to which cords were affixed, were fastened by buckles upon the lower part, and he was drawn up gently from the ground by the help of pullies. Repeated trials by this method produced no sensible effect. We then used Freke's improved Ambi, and at one trial the bone suddenly advanced as if a reduction had taken place; but repeated efforts in this method had not the desired effect. We next made use of the methods recommended by Dr. Kirkland and Mr. White, placing a towel round the operator's neck, and holding back the inferior part of the scapula by means of a roller covered with cloths. Mr. Lucas and Mr. Jones afterwards tried to reduce the bone by the heel in the axilla, and Mr. Lucas perceived a noise during one effort, as if the bone had returned to its place. While the last method was in use, it occurred to me, that extension made in a direction parallel to that of the body was not likely to succeed, while the head of the bone lay so deeply sunk, and behind the pectoral muscle. I therefore advised that one person should extend the arm at right angles to the body, by the hold of the fore-arm, placing his foot against the side of the patient's thorax. In this way, the person making the extension would not only have a firm support, but would also be enabled to repress the lower part of the scapula by his heel placed against it. That during this extension, another person, lying by the side of the patient, should place his heel against the upper part of the os humeri, as near to its head as possible, and should push it in a direction parallel to that of the patient's body. By this method, the bone altered its situation with such a noise as is usually heard in reductions, and we concluded, that the head of the bone had re-entered the socket; but when the arm was brought close to the patient's side, we found that the head of the bone was still in the axilla. This appearance of success encouraged us, however, to repeat the operation, but the event was the same. We now imagined, that some portion of the capsular ligament might be folded so as to be intercepted between the head of the bone and the glenoid cavity, into which we judged the bone to have been twice brought. On this supposition, after making the reduction the third time, the os humeri was moved in various directions, sometimes upon its own axis, sometimes upwards and downwards, before we attempted to bring the arm towards the patient's side. Also, while the extension was continued, a flattened ball of tow was

was thrust up into the axilla by the heel, to prevent the head of the bone from retiring again into the axilla; the arm was then brought into contact with the patient's side, the extension being continued, though in a different direction, and the heel being gradually withdrawn as the arm approached the side. By these means the reduction was completed and confirmed. As the tendency to dislocation was so great, the arm was kept for a few days in contact with the side by a piece of girth web put round the arm and the body of the patient, who was dismissed cured."

Observations on different species of injuries of the larger joints, form the subjects of some of the succeeding chapters. They bear the same marks of accurate observation and good surgery.

The latter part of this volume consists of short observations on a variety of cases that are constantly occurring to the surgeon; some of them neither new nor of great moment; but the author invariably gives the result of his personal experience; and the perusal of this collection cannot fail to give a strong impression of the value of that experience. From the faithful testimony of Mr. Hey's case-book, which is here laid before the public, we conceive his practice to have been vigorous, decisive, judicious, and abounding with resources; and we do not hesitate to recommend this volume as worthy of a place in the library of every surgeon.

The Charleston Medical Register, for the Year 1802. *By* DAVID RAMSAY, M. D. Charleston. 12mo. pp. 22.

THE author of this pamphlet has been long so respectably known to the people of the United States as a writer and a practitioner of medicine, that to announce a publication from his pen will be sufficient to excite the attention of our readers. We are exceedingly pleased with the plan of this Register, which comprizes within a small compass a variety of important notices of subjects pertaining to medicine, and leaves us nothing to regret but the brevity with which some of them are treated. So highly prized are the abilities and experience of Dr. Ramsay, that whatever the pressure of his multiplied avocations compels him to curtail or to postpone in a performance of this kind, is felt by the public like the privation of a benefit to which a claim had been formally entered.

A view of the plan and objects of this Register will appear from the introduction prefixed to it, which we give in the words of the author:

" Medical facts, correctly stated and diligently compared together, reflect great light on the practice of physic. Conformable to this established principle, it must be obvious, that annual statements of the principal events connected with the health of the inhabitants, made by physicians in different places, would be particularly useful. The more extensively this was done, the better; but in the United States the advantages of such publications are enforced by peculiar considerations. In the old world, the attention of learned men has

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been employed, for many centuries, in applying the general principles of medical science to the local peculiaritiss of each particular spot. Knowledge of this kind, in America, chiefly rests with individuals. To bring it within the reach of the community, requires the joint labours of practitioners in every part. If one physician, in each of the cities and towns of the United States, and several in the country parts of each state, were to favour the public with an annual account of the state of diseases, and of the circumstances connected with them, as far as their observations extended, there would, in time, be an accumulation of materials, from which we might obtain the following advantages:

"1. More correct knowledge of the diseases of the United States.

"2. A comparative view of the health and longevity of the inhabitants in different places.

"3. Authentic evidences of all changes of the climate that took place; and particularly of the effects produced on the health of the inhabitants from clearing and cultivating the soil, and from the different modes and articles of culture.

"4. Persons labouring under any constitutional predisposition to particular diseases might select, with precision, a place of residence, least likely to call into action the particular predisposition under which they laboured. Such is the extent and variety of climates in the United States, that this might be done in almost every case, without changing the government or language to which persons proposing a change of residence were accustomed.

"5. Physicians would be enabled to direct invalids to such a route in travelling as would best suit their particular habits and diseases. From the want of this local knowledge, improper advice is frequently given. The longitude and latitude of places afford no certain rule. Their influence, controled by a variety of local circumstances, is by no means uniform.

"The advantages of the proposed annual publications would not be confined to the medical department. The farmer and gardener, from an average of seasons, would be assisted in forming their opinion of the best time for their respective operations.

"The enterprising agriculturist, who wished to enrich his country with some new productions, would be informed when and where to make his experiments, by comparing the observations auxiliary to the practice of physic, with the usual habits of the particular commodity he wished to introduce.

"A facility might thus be given to the introduction of ginger, Japan sago, of the almond, allspice, caper, clove, cinnamon, camphor, nutmeg, red cotton trees, and several other valuable exotics. There are, doubtless, portions of the United States suitable to the culture of these articles; but that suitableness is unknown to foreigners, and equally so to the owners of the soil. The same observation applies to the introduction of new animals, and of new branches of manufacture. Success, in both cases, must be materially influenced

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fluenced by the degree of heat and cold, and of the moisture and dryness of the atmosphere.

"The foreigner, who wished to remove to this part of the world, would also be enabled to determine where to locate himself, in a situation least variant from his trans-atlantic residence."

The following account of the diseases which chiefly prevailed in the course of the year, is presented to our readers:

"Charleston, in the year 1802, was afflicted with four epidemics; the small-pox, the measles, the influenza, and the yellow fever. There were cases of the small-pox in almost every month of the year. It proved fatal to four children, though inoculated for it by skilful physicians; and also to about twenty other persons, who took it in the natural way. These died under circumstances horrid to see, and painful to relate. Covered with confluent sores, they could neither stand, sit, nor lie, without exquisite pain. Their bodies and bed-clothes were stiffened with fœtid discharges from every part of their skin. The whole emitted a stench intolerable to bystanders. Humanity was put to the rack while it discharged the offices necessary for their support. In one case, an unfortunate negro (who caught the disease, remote from help, and unknown to his owner) was so far bereft of all power to help himself, that rats devoured a large portion of his tendo Achillis some days before he died. The recoveries from the small-pox were much more numerous than the deaths. Though in many cases, the subjects of the former suffered comparatively little, there were others who escaped with difficulty, and after a painful and distressing confinement.

"A considerable number, (supposed to be no less than twenty) took the small-pox in the natural way, after having been inoculated for it, and after medical practitioners had declared that they had the disease. One of these unhappy patients died, and others suffered more from it, in consequence of no pains having been taken to obviate a malady, from the attacks of which they supposed themselves to be free, till its advanced stages evinced the mistake.

"The general complexion of the diseases, for the first seven months of the year, was inflammatory. Pleurisies, acute rheumatisms, and complaints of the breast, were uncommonly frequent. From these precursors, some predicted a sickly summer, and a great prevalence of yellow fever; but they were agreeably disappointed. July, and the first seventeen days of August, were cool and healthy; there was only one day in both months in which the mercury in Fahrenheit's thermometer reached eighty-nine. The old inhabitants were generally free from diseases of every kind; and only two strangers died of the yellow fever before September. Fourteen of the last days of August, and the twenty-two first of September, were steadily warm; but not to so great a degree as in some former years. In only three of them (the 26th of August, and the 14th and 15th of September) did the mercury rise as high as 89. On the other hand, in only two of them (the 5th and 6th of September)

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tember) did it fall below 80. In this warm season the yellow fever began to extend, but was less mortal than usual. More than half who were attacked by it recovered. The mode of treatment which seldomest failed, was depletion, followed by a mercurial salivation. There were a few, and only a few cases, where calomel produced its usual effects, in which the patient did not recover. Where the disease proved fatal, its superior excitement rendered this and every other medicine comparatively inert.

" A few strangers, though from northern latitudes, passed the summer (their first) in Charleston, without being attacked with the yellow fever. In three cases it proved fatal to persons who had resided in this city for eighteen months immediately preceding. No instance occurred of the death of any under twelve years of age from this disease.

" The eagerness of the people to receive their winter goods early in the season, induced men in trade to order matters so, that several vessels from foreign ports arrived in Charleston, with their unseasoned crews, in the months of August and September.

" To such the yellow fever was particularly inhospitable. To others arriving in the same season, Sullivan's Island afforded a safe retreat, till the danger was over. Exceptions to this have heretofore been very rare, and generally could be accounted for from some irregularity; but in the year 1802, five cases of the yellow fever (and two of them fatal) occurred in one house on that island, while the other inhabitants were generally healthy.

" No instance can be recollected, in which there was any ground to suppose that the yellow fever was either imported or had been contagious. No physician, nurse, nor other person exposed to contagion, from their intercourse with persons labouring under yellow fever, caught the disease. It was exclusively confined to strangers; and among them there was no evidence of its being communicated from one to another."

The introduction of the vaccine disease into Charleston is stated to have taken place in February, 1802, and to have succeeded in the most perfect manner. The author thinks that " nothing is now wanting to exterminate the small-pox but a general and simultaneous vaccination."

Among the medical improvements made in Charleston in the year 1802, Dr. R. mentions the establishment of a Dispensary, and the more active and energetic proceedings of the company incorporated in 1799, for the purpose of supplying the city with wholesome water from a pure and sufficiently distant source.

A regular series of meteorological observations is likewise included, which appears to have been made with great accuracy, and which affords a very satisfactory account of the temperature, &c. during that year.

The following interesting particulars of an attempt to rob the bank of South Carolina, will, we are confident, appear to all our readers to be deserving of especial notice.

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" On the night of the ninth of October, 1802, William Withers, a horse dealer from Kentucky, descended through a grate into one of the covered arch drains that pervades the streets of Charleston, and passed along the same, till he was opposite to the South-Carolina Bank. He then began operations to make a subterraneous passage across from the drain to the vaults in which the cash of the bank was deposited. In prosecuting this business, he passed ninety days and nights under ground, and in a prone posture. For the first twenty-two days after his descent, it was so uncommonly warm as to be on an average nearly seventy-nine. For the last sixty-eight days the heat varied from seventy-four to thirty-three. In the first period, yellow fever, intermitting, and other fevers of warm seasons, were common among the inhabitants. In the last period, pleurisies, colds, and catarrhal complaints, were, in like manner, frequent: yet, all this time Withers enjoyed good health, with exceptions of a few slight head-achs and pains in his bones, which generally went off with perspiration in the course of his next repose. His situation in the drain was distressing; but it was tolerable; after passing through it, he was surrounded with earth. He had no blanket, nor covering of any kind, but his light ordinary apparel, which he had never put off. His usual time of sleeping was when he judged it to be day, from the noise he heard over his head. His signal for recommencing work was the receipt of provisions, dropt by his accomplices in the night, through a grate. He was sometimes exposed to serious danger from the springing of water; and his bed was earth, which was often damp. His food was mostly bread, butter, and cheese, and (with the exception of one bottle of wine) water was his only drink. Butter burning in a lamp afforded him light.

" Three days frequently passed without discharging the contents of his bowels.

" The enjoyment of so much health, for so long a time, under such circumstances, was, in part, probably owing to the following causes:

" 1. A strong constitution, inured to hardships in every period of his life.

" 2. That constitution suited to the air of Charleston, by a very recent seasoning. He had but just recovered from a severe fever when he entered the drain. Though relapses are not uncommon, yet a new and distinct fever scarcely ever attacks strangers in the same summer, in which they receive their first serious impressions from our climate.

" The effects of moisture must have been, in a great degree, parried by his labour, and the moisture itself moderated by the dry sandy nature of the soil through which he had to work, and by the absence of rain: for the first fifty days after his descent, the whole quantity of rain that fell did not amount to two-tenths of an inch; and in the last forty was only five inches eight-tenths; besides,

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sides, simple moisture, without heat or miasmata, is comparatively harmless.

"The absence of several of the exciting causes of diseases. The heat of well water and of the earth, a few feet below the surface, is generally the same in all countries as the medium heat on an average of the different seasons in these countries respectively. This, in Charleston, is sixty-five, or, at most, sixty-six on Fahrenheit's thermometer. Withers must have enjoyed a steady unvarying atmosphere of this temperature, while the inhabitants above ground were panting under a heat of eighty, or distressed with the cold of thirty-three, and subject to all the changes of an atmosphere, vibrating from one extreme to the other. That something in the air of Charleston, which is so destructive to strangers, in the summer and autumn, is too volatile to descend below the surface. Miners and colliers in all countries are generally healthy.

"The experiment is not recommended; but it is probable that a subterranean residence might be so constructed as to afford security against our local diseases.

"The great excitement of Withers' mind, from the prospect of accumulating wealth, must have counteracted the effects that otherwise would naturally have resulted from his situation. The energies of human nature, when in pursuit of a great object, (especially if invigorated with the hope of obtaining it) are beyond all calculation. The weakly wife, and the tender mother, will undergo watchings and fatigues in nursing the object of their affection, far beyond the power of human nature to bear, when in a state of indifference. The high toned state of Withers' mind must have had a decided influence in preserving his health: It is much to be regretted that it was not excited by worthy objects.'"

We hope the author will be induced, by the considerations which he urges with so much force and good sense, annually hereafter to continue his Register; and that other physicians, in different parts of the United States, will become emulous to follow his good example.

A Treatise on the Cow-Pox, containing the History of Vaccine Inoculation, and an Account of the various Publications which have appeared on that Subject, in Great Britain, and other Parts of the World. By John Ring. Part II. 8vo. p p. 567. London, 1803.

This correct, indefatigable, and successful promoter of Vaccination, has at length completed his elaborate history of the subject, down to the present time. His industry and talents for such a task are sufficiently known to those who are acquainted with him, or have read his first volume, to which this is in no respect inferior. As the Medical Journal contains a very full history of the cow-pox, at least all the more important facts, our readers will not expect us to give extracts from the present work. This

2d Part

2d Part is accompanied with a coloured plate, which gives a very excellent representation of the progress of the vaccine vesicle through all its stages, and there is added a copious Index to both Parts.

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

Vacciolous Inoculation.

Some reports having gone abroad that the Cow-pox has been found to secure the constitution from the plague in Constantinople, and some other parts of European Turkey, Dr. Jenner begs leave to lay before the public, the evidence which he has received of this important fact. He does not deem the point clearly ascertained, but cannot forbear thinking, that every reader will see a considerable presumption in its favour in the following extract of a letter:

From Dr. De Carro, *of Vienna, to* Dr. Jenner.

" Your discovery has already produced some consequences which you surely were very far from foreseeing when you made it known to the world. I believe that I once mentioned to you, that a French physician, M. La Font, thought he had observed, that vaccinated people were not attacked by the plague. He described to me the facts which raised the suspicion: they were few, and not very conclusive, but he spoke of his new observations with modesty and prudence, and thought only that the subject deserved his further attention. Another physician at Constantinople, M. Auban, who never had any communication with M. La Font, who is of Salonica, wrote to me about a year ago, that he also had some suspicion of the cow-pox being a preservative against the plague—did not mention facts, but said, that several people had observed the same, and many vaccinated themselves as a security against the plague. Guess what was my astonishment, when a few days ago I received, through the French Ambassador at Vienna, a packet of Dr. Auban, who begins his letter with these words: — " What I had the honour of mentioning to you long ago, concerning the cow-pox being a security against the plague, as a probability, I can now, after many experiments, speak of almost as a certainty. He describes the facts summarily in his letter, and adds two *process verbaux*, signed by him and several witnesses, desiring Citizen Champagny and myself to give them every possible publicity. The proofs are,

1st. Of

1st. Of 6000 vaccinated at Constantinople, not one has taken the plague.

2d. That infants previously vaccinated have sucked, without injury, the milk of nurses infected with the plague.

3d. That an Italian physician, Dr. Valli, who went to Constantinople to study the plague, was so persuaded of the truth of the new discovery, that upon the sole security of having been vaccinated, he shut himself up in a lazaretto, and had with people attacked with carbuncles and buboes, various modes of contact, without any effect.

4th. That the same Dr. Valli inserted into his own hand, a mixture of variolous and pestilential virus, and having felt no effect from that trial, he meant the following week to insert pestilential virus alone.

5th. That Dr. Auban, having been informed that in some villages near Constantinople, the cows were subject to some eruptions on their udders; he, with several gentlemen of the French embassy, went to those villages, and found the cow-pox then existing. The report of the inhabitants was, that they had never seen the plague, or the small-pox, among them; though both these diseases made dreadful ravages in the vicinity.

Such, my dear Sir, continues Dr. De Carro, are the extraordinary facts which have been communicated to me. I have now and then corresponded with M. Lafont and M. Auban; their correspondence announces much medical information. The second, acquainting the world with such an important discovery, runs certainly a great risk, if he deceives it by false and hasty observations.

Employment of Pot-Ash with Animal Flesh, prepared and cooked for Food, instead of Muriate of Soda.

Many instructive facts are furnished by the history of rude nations. The Indian tribes of North America furnish some very important particulars concerning the antiseptic and wholesome qualities of alkalies. Within the territory of the United States of America, many of the tribes, and more especially the parties on expeditions for war and hunting, are scantily supplied with common salt. Frequently their stock of that article is totally expended. The Delawares, Iroquois, Wyandots, Cherokees, Chickasaws, and Creeks, then season their meats with a form of pot-ash. As these people live chiefly upon animal flesh, it is a very natural inquiry by what means they preserve so perishable a material from corruption, and with what condiment they prepare it so as to render it agreeable to the palate and stomach. It is not correct, as stated by some writers, that because they preserve and eat their meat without sea-salt, that they employ no other kind of salt. The form of pot-ash the savages sprinkle on and mingle with the flesh of beasts intended to be eaten, is CLEAN WOOD-ASHES. When they mean to dry their meat for future use, they cut it into thin slices, and expose it to a pretty hot fire; and, during the operation, they either

either baste it with a mixture of the gravy or liquor that drops from it *and ashes,* or they powder it, from time to time, with the clearest *ashes they can collect.* Thus they alkalize their dried bear, deer, and bison. They find that hickory and shrubby-oak (black-jack) yield the strongest and most alkaline ashes.

If they roast their meat, they are careful to dress it frequently, as it cooks, *with ashes taken fresh from the consumed wood.* This they dispose externally on every part. A portion of it dissolves, and penetrates deep among the fibres and membranes; while the rest, united with some of the animal juices, forms a sort of saline incrustation on the outside. This alkaline condiment renders the flesh remarkably more palatable; and, what is of greater importance, reconciles it to the stomach, and prevents the ill effects it would otherwise work upon the bowels. Very commonly the Indian collects fine white ashes from the fire brands into the palm of his left hand, and dips the morsels of meat into them from his right. For the same reason, the Indians, when they broil flesh, choose to put it *upon the hot coals, and oftentimes they put another layer of live coals upon the top of the slice. Thus they obtain a salting or seasoning with alkalies.* It is a common practice for an Indian to apply a bit of meat, just before he puts it into his mouth, to the surface of a brand, that it may attract the ashes adhering to it, as we dip into salt. These practices have been, and are now, commonly imitated by white men (hunters, soldiers, &c.) who remain long enough in the woods to expend their sea-salt and provisions cured therewith. The *alkali of ashes* is then resorted to, and preserves their food and their health.

An Idea of the Rate at which distilled Spirits are consumed in the United States of America; from the Medical Repository of New York.

As a medical, commercial, and political subject of inquiry, the consumption of ardent spirits is very interesting. Economists, statesmen and moralists have long deplored the abuses of these products of the still. But it is probable the cause of their regret and lamentation will not be soon removed. As long as one class of people find a profit in distilling ardent spirits from the raw materials; a second in purchasing them by wholesale, or shipping them from country to country; and a third in dealing them by retail to those who consume them; there will be distillers, merchants, and retail dealers in abundance, to satisfy the wants of him who wishes to regale himself with brandy, gin, whiskey, &c. When we consider the great amount of these articles brought to market, and reflect that they are all destined to pass into the human stomach, it becomes interesting to know minutely the rate and manner of their consumption. The following may serve as an example of what is frequently done by a labouring man in an American town, who passes for a sober citizen. As he walks out in the

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the morning he takes what is called a SMALL glass (half a gill) of bitters, gin, or something of the sort, at the first grog-shop he passes; and commonly takes a second whet (another half gill) before he gets to work. Generally he takes two more of these SMALL glasses of raw and clear stuff (amounting to another gill) as he returns home to get his breakfast. Thus a half pint is disposed of before eight o'clock A. M.

On going out from breakfast he takes a LARGE glass, or a whole gill; and in the middle of the forenoon another. To this is added a third as he comes home to eat his dinner. This amounts to 3 gills between eight and twelve o'clock.

He drinks another LARGE glass as he goes out to work, at or before two P. M. another in the middle of the afternoon, and a third on returning from work at six or after; making three gills more by the time his day's work is ended.

The daily quantity of distilled spirits consumed by one of these persons is as follows,

Before breakfast — — —	2 gills
Before dinner — — —	3
By the time the day's work is done	3
Total, —	8 gills,

or one quart of distilled spirits, consumed by a single labouring man in a day, besides what he drinks in porter-houses, clubs and other meetings in the evening; and the greater part of them can still keep about, and do their work, without being actually drunk. By degrees, however, it overcomes them, and they yield to the repeated and excessive stimulus of their strong draughts.

The retail cost of these doses of spirits is a heavy tax upon the individual, and amounts to as much as would buy his family bread, butter, and sweetening.

Morning drams,	four half gills, at 3d.	1s.
Grog before noon,	three gills, at 6d.	1 6d.
Grog after noon,	ditto	1 6
		4 shillings,

or half a dollar a day, spent out of his wages for rum, to be swallowed to his own ruin, and to the pinching and impoverishment of his family. There are hundreds of men who go on at this rate of drinking as long as health and money hold out. In the city of New-York there is a great number of houses where strong liquors are thus retailed. Alkohol seems to be a greater curse to Christians than opium to the Turks.

Dr. VAN DEN BOSCH recommends the radix lopez as a very excellent remedy in colliquative diarrhœas; he administers it, forma pulveris, in a dose of half a drachm, to be taken three or four times per day.

Bill

Bill of Mortality for Portsmouth, in North America, for 1802. *By* Lyman Spalding, *M. B. &c. extracted from the Medical Repository.*

COMPLAINT.	AGE.	NO.
Aptha.	4, 4 weeks.	2
Apoplexy.	66, 33, 55, 43, 63 years.	5
Atrophy.	55, 69, 40, 55 years. 3 m. 60 years.	6
Cancer.	55, 63, 60 years.	3
Canker-rash.	8, 2, 5, 7 months. 2, 16, 23, 4 years.	8
Cholera of Infants.	6 to 24 months.	13
Cholic, Bilious	42 years.	1
Consumption.	14, 74, 53, 47, 53, 30, 69, 17, 33, 30, 60, 14, 33, 18, 69, 64, 60, 33, 28, 48, 52, [illegible], 29, 50, 63, 28, 22, 30 y.	28
Debauchery.	55, 38 years.	2
Dropsy.	69, 50, 84, 52, 89, 24 years.	6
Dropsy in the Brain.	3, 7, 7, 8, 13 years.	5
Dysentery.	3, 2, 2 years.	3
Epilepsy.	64, 2, 2 years.	3
Fever and Ague.	33 years.	1
Fever, Bilious.	74, 30, 27 years.	3
Fever, Bilious Malig.	44, 31, 41, 13, 35, 21, 30, 40, 30, 13 y.	10
Fever, Pulmonic.	65, 45 years.	2
Gout.	52 years.	1
Gravel.	41 years.	1
Hooping-Cough.	10 weeks to 1 year.	8
Infantile Complaints.	6 days. 4 weeks.	2
Measles.	7, 1, 20, 4, 9 m. 2, 7, 1, 2, 1, 2 years.	11
Mortification.	7 months. 1 year.	2
Old Age.	94, 90, 78, 76 years.	4
Palsy.	60, 74, 64, 50 years.	4
Phrenitis.	30, 12 years.	2
Premature Birth.		6
Quinsy.	3 years.	1
Scald Head.	1 year.	1
Small-Pox, natural.	33 years.	1
Small-Pox, inoculated.	1 year.	1
Casualties. Drowned.	48, 60 years.	2
Casualties. Fall.	55 years.	1
Casualties. Frozen.	82 years.	1
Casualties. Poison by Opium.	4 months.	1
Casualties. Suicide.	32 years.	1

Portsmouth, situated 43 deg. 5 min. N. 70 deg. 41 min. W. from London, contains about 5600 inhabitants. The town has been very unheathful; some epidemic having raged the whole year. The hooping-cough, in January and February, was very prevalent; and some sporadic cases continued till September. The measles made its appearance about the middle of March, and was very

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very prevalent till July; at which time a bilious malignant fever made its appearance, and continued till August, when the cholera and canker-rash commenced, and continued through the year.

Mr. OLLENROTH, Surgeon General to the Prussian Army, has invented an apparatus for removing extraneous bodies from the œsophagus. It consists of sixty-one beads of tin, well-polished, each of the size of a large pea. At one end they are somewhat excavated, and in the middle perforated with an opening, through which a double lute-string is drawn so as to form of them a flexible cylinder, the convex part of the upper beads being received into the concavities of those under them. The knot with which the two strings are tied together must be covered with leather, and is hid in the cavity of the uppermost bead, and to it a sponge of about eight or ten inches in diameter is fastened. Five or six loops are adapted to that flexible cylinder, each made of strong silk strings, so as to form two 8 crossing each other; they are applied at a proper distance from each other, about five beads being the space between every one of them, and they must be as long as three beads. At the end opposite to that where the sponge has been fastened, a handle is adapted to the lute-strings issuing there. This instrument, on account of its flexibility and smoothness, glides easily down the œsophagus, the sponge dilating the topical contraction of that organ, while the loops serve for seizing and bringing out the extraneous body, as needles, pins, &c.

Mr. R. VAZIE has invented an instrument for facilitating evaporation. It consists of a hollow cylinder, caused to revolve slowly within a boiler of correspondent form and dimensions. A common roasting-jack may be so applied as to give motion to a number of these cylinders. Equal vessels being filled with water, and exposed as nearly as possible to the same degree of heat, the cylinder was applied to one of them, and it was found that the evaporation in this vessel exceeded that of the other in the proportion of three to two nearly. The heat of the agitated vessel was constantly 170°, that of the other 212°.

Dr. SCHAUB has discovered a new method of obtaining Prussic acid in a state of absolute purity. The process consists in pouring upon one part of Prussian-blue, half as much sulphuric acid, diluted with an equal quantity of water, and subsequent distillation. The Prussic acid passes over in alcohol; its odour greatly resembles the water of the Lauro Cerasus. It is a deadly posion to animals.

The following method of obtaining tungsten is recommended by RICHTER, a German chemist:—Let equal parts of tungsten oxide (tungstic acid) and dried blood be exposed for some time to a red-heat in a crucible; pass the black powder, which is formed into another smaller crucible, and expose it again to a violent heat in a forge

forge for at least an hour, and tungsten will be found in the crucible, in its metallic state.

The Rhus radicans of Linneus, or the toxicodendron of Tournefort, the juice of which is acrid and corrosive, and which by simple contact, commonly causes erysipelatous eruptions, has been hitherto known only by its destructive qualities, and by some properties which are useful in dying. Dr. Dufresnoy, of Montpellier, has accidentally discovered in this plant certain valuable qualities. Having observed that a young man, who had been troubled for six months with a tetter on his wrist, was suddenly cured by handling the Rhus radicans, he determined to try the effect of it in other cases; and after several experiments, he has ascertained its efficacy in destroying ring-worms, and in healing paralysis.

A beautiful fossile fish was lately found in one of the quarries of Nanterre, near Paris, which is the second that has been discovered in a mass of solid stone; it belongs to the genus Coryphene, of Lacepede, and has a close affinity to the Coryphenus Chrysurus.

The Duke of Wurtemburg has lately appropriated the sum of 40,000 German florins, to establish a Medico-Chirurgical Hospital, in the University of Tubingen, as likewise a Lying-in-Hospital for Women. He has, at the same time, augmented the funds of the public Library of that University.

Mr. Fox will commence his Lectures on the Structure and Diseases of the Teeth, in the Theatre of Guy's Hospital, on Tuesday, November 29, at seven o'clock.

The following gentlemen are elected Presidents of the Physical Society at Guy's Hospital for the present session: Dr Haighton, Dr. Walshman, Dr. Curry, Mr. A. P. Cooper, Mr. Thomas Hardy, and Mr. William Saunders.

A History of Animal Chemistry, by W. B. Johnson, the friend of the late Dr. Darwin, in three volumes, octavo, with a copious Index, is nearly ready for publication.

A new Edition of Mr. Skrimshire's popular Chemical Essays will be published next month.

TO CORRESPONDENTS.

Richerand's Elements of Physiology will be noticed in our next number.

Communications are received from Mr. Nayler, Mr. Roche, Mr. Morgan, Mr. Dunn, Mr. Blair, and from the Continent.